

Understanding Social Withdrawal in Children:

A Multimethod Approach

by

Greta Francis

Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute And State University
in partial fulfillment of the requirements for the degree

of

DOCTORATE IN PHILOSOPHY

in

Psychology

APPROVED:

Thomas H. Ollendick, Chairperson

George Clum

Russell T. Jones

Janet Sawyers

Richard Winett

October, 1986
Blacksburg, Virginia

78-1-87
HGH

UNDERSTANDING SOCIAL WITHDRAWAL IN CHILDREN:
A MULTIMETHOD APPROACH

by

Greta Francis

(ABSTRACT)

The importance of childhood social functioning has been well established in the clinical and research literature. Recently, empirical investigations have underscored the long-term stability of aberrant patterns of childhood social interaction such as social withdrawal and aggression. As such, it is critical to be able to identify such patterns of behavior in children. The purpose of the present study was to conduct a multimethod behavioral assessment of childhood social withdrawal. Fourth and fifth grade children identified by teachers as socially withdrawn were compared with children identified by teachers as socially well-adjusted. A teacher nomination procedure was used to identify thirty withdrawn and thirty well-adjusted boys and girls. A multimethod behavioral assessment was conducted using the following techniques: (1) self-report measures of anxiety, fear, and depression; (2) a teacher rating scale of withdrawn classroom behavior; (3) peer sociometric measures; (4) behavioral observations of peer interaction;

(5) parent ratings of withdrawn behavior; (6) behavioral role-play task; and (7) a cognitive social self-statement test. Results indicated that teacher-identified withdrawn and well-adjusted children differed significantly on the majority of these measures. Withdrawn children reported more fear, anxiety, and depression than did well-adjusted children. Using a rating scale of discrete behaviors, teachers were able to discriminate between withdrawn and well-adjusted children. Peers, too, were able to differentiate between withdrawn and well-adjusted children. Withdrawn children received significantly lower peer sociometric ratings and fewer sociometric nominations than did well-adjusted children. Behavioral observations of peer interaction revealed that withdrawn children were more likely to spend free-play time engaged in solitary or adult-oriented activity than were well-adjusted children. Finally, results of the cognitive social self-statement test yielded significant differences between withdrawn and well-adjusted boys and girls. In particular, withdrawn boys endorsed more inhibiting thoughts and fewer facilitating thoughts than did well-adjusted children.

ACKNOWLEDGEMENTS

First, many thanks to my advisor, Tom Ollendick. It has been a privilege and a pleasure to work with him throughout these oh-so-many years. Then again, that one SEPA convention symposium was pretty embarrassing! In all seriousness, it is hard to find the right words to express my gratitude, so I will just say thank you very much.

Thanks as well to my committee members, George Clum, Russell Jones, Janet Sawyers, and Dick Winett. Their insightful comments were very helpful in completing this manuscript. In addition I would like to thank Cindy Baum, former committee member, even though she left town rather than face my dissertation defense!

I would not have been able to complete this project without the help of _____ and _____

_____. Thanks to _____ who ran many of the subjects, and to _____ who held down the fort.

A number of ever-so-special friends made graduate school bearable enough to allow me to get to this point. Along the way they offered many words of wisdom that I will not soon forget. Many thanks to _____ ("Remember, the quicker you get behind, the longer you'll have to catch up"),

("Yeah, yeah, Animal Learning is a breeze. That's the ticket"), ("Excuse me...I have two pieces of advice. One, always make lists. Two, never ride in a Pinto"), ("Perhaps you better read that SAS manual one more time"), and "don't ever call me " ("Just because people don't talk to us doesn't mean they don't like us").

Finally, I would like to thank my family for valiantly fending off all those questions from the neighbors about whether I would ever finish school. Love and thanks to my parents (a.k.a., "The First National Bank of Pennsylvania"), brother, and sister.

TABLE OF CONTENTS

INTRODUCTION.....	1
General Introduction.....	1
Features of Social Withdrawal.....	8
Behavioral observations.....	8
Sociometry.....	10
Teacher ratings.....	16
DSM III.....	19
Internalizing dimension.....	22
Cognitive factors.....	24
Purpose of Present Study.....	26
Experimental Hypotheses.....	27
 METHOD.....	 29
Subjects.....	29
Subject Selection.....	29
Measures.....	30
Self-report.....	30
Significant other-report.....	34
Other assessments.....	37
Procedure.....	43
 RESULTS.....	 45
Correlational Analyses.....	45

Initial Multivariate Analyses.....	46
Self-report Measures.....	47
Factor Scores.....	48
Significant Other-report Measures.....	50
Behavioral Observations.....	51
Role-play Test.....	52
Structured Interview.....	53
Cognitive Self-statement Test.....	53
Discriminant Function Analyses.....	54
DISCUSSION.....	56
General Discussion.....	56
Future Directions.....	62
Conclusion.....	65
REFERENCES.....	66
APPENDICES.....	81

LIST OF TABLES

<u>TABLE</u>	<u>TITLE</u>
1	Correlation Matrix: Self-report, significant other-report, and behavioral observation variables
2	ANOVA: Self-report measures
3	Self-report measures: Cell means and standard deviations.
4	Correlation Matrix: FSSCR factors
5	ANOVA: FSSCR factors
6	FSSCR factors: Cell means and standard deviations
7	Correlation Matrix: RCMAS factors
8	ANOVA: RCMAS factors
9	RCMAS factors: Cell means and standard deviations
10	ANOVA: Significant other-report measures
11	Significant other-report measures: Cell means and standard deviations
12	ANOVA: Behavioral observations
13	Behavioral observations: Cell means and standard deviations
14	Structured interview: ANOVA; Cell means and standard deviations
15	ANOVA: Cognitive measure
16	Cognitive measure: Cell means and standard deviations
17	Discriminant function analysis: Self-report measures
18	Discriminant function analysis: Significant-other report and behavioral observation measures

LIST OF APPENDICES

Appendix A	Child permission form
Appendix B	Dependent measures
Appendix C	Tables

INTRODUCTION

General Introduction

It is only recently that research in the area of children's psychopathology and interpersonal behavior has been attempted. Researchers have begun to explore the extent to which early childhood dysfunctional behavior might be related to dysfunction later in life. While a direct causal link has not been demonstrated, the available literature clearly suggests the existence of a longitudinal relationship between childhood dysfunction and later adjustment. Childhood social dysfunction has been related to adult mental health difficulties (Cowen, Pederson, Babigan, Izzo, & Trost, 1970), juvenile delinquency (Roff, Sells, & Golden, 1972), social maladjustment (Kohn, 1977; Ullman, 1957), and aggressive behavior in adulthood (Clarizio, 1969). As such, appropriate social interaction has been viewed as critical to normal child development (e.g., Whitman, Mercurio, & Caponegri, 1970).

Social withdrawal in children largely has been ignored from an assessment and treatment standpoint. Greenwood, Walker, and Hops (1977) stated that childhood social withdrawal rarely comes to the attention of mental health professionals such as

school psychologists because socially withdrawn children do not disrupt classroom activity, present special management difficulties, or cause specific instructional problems. As such, socially withdrawn children are less likely to be identified and referred for services than their aggressive and disruptive counterparts. In fact, socially withdrawn behavior may even be valued within the traditional classroom environment. Winett and Winkler (1972), in their critique of traditional uses of behavior modification in the classroom, described the "model" student as "one who stays glued to his seat and desk all day, continually looks at his teacher or his text/workbook, does not talk or in fact look at other children, does not talk unless asked to by the teacher, hopefully does not laugh or sing (at the wrong time), and assuredly passes silently in the halls" (p.501). Indeed, the "model" student whom they describe sounds quite withdrawn and unassertive.

Estimates of the incidence of social withdrawal in children vary considerably. Estimates range from a low of less than 3% of a five to fifteen year old sample (Shepherd, Oppenheim, & Mitchell, 1971) to a high of 35% (Macfarlane, Allen, & Honzick, 1954). Gilbert (1957) reported that 12% of his metropolitan, clinic-referred sample of children were socially

isolated and shy. Such variation may be due to a lack of operational specificity in the terms used to characterize social withdrawal.

Lazarus (1982) conducted a survey of 396 fifth grade children, and reported that 38% labeled themselves as shy, 59% said they would rather be less shy, 46% felt that shyness was a problem for them, and 47% wanted to participate in a counseling program designed to ameliorate shyness. The author also discovered a significant sex difference with 49% of girls labeling themselves as shy compared to only 26% of boys.

Ishiyama (1984) examined differences between self-described shy and non-shy tenth graders. Results indicated that, compared to non-shy adolescents, shy adolescents reported significantly more loneliness, shyness-related interference in academics and friendship-making, shyness around the opposite sex, and belief that shyness was noticeable to others. Additionally, shy adolescents described poor concentration, speech problems, self-consciousness, and punitive self-talk during episodes in which they were behaving shyly.

Reports from adults who describe themselves as shy suggest that shyness is a significant problem. In an examination of letters written in response to a

television program on shyness ("Shyness: handicap or happiness"), Harris (1984) reported that correspondents asserted that while shyness is a serious problem to those who suffer from it, shyness is not taken seriously by others. Furthermore, these correspondents indicated that such ignorance served to exacerbate their shyness.

While numerous studies have been published detailing the long term stability of aggressive social behavior in children (e.g., Olweus, 1977), until recently childhood social withdrawal was thought to be a rather transient phenomenon. However, recent research is suggestive of a longitudinal relationship between early and later social withdrawal as well. For instance, poor academic achievement (Hartup, 1970) and adulthood social withdrawal (Waldrop & Halverson, 1975) have been reported for individuals identified as socially withdrawn children. Kohn (1977) found that children identified as apathetic and withdrawn in preschool day care showed less peer interaction and poorer academic achievement in third grade than their socially competent peers. In addition, third grade teachers perceived these same children as withdrawn. Finally, Buss, Block, and Block (1980) discovered that three year olds who were rated by their preschool teachers as shy, reserved, withdrawn, and solitary

were less active than their non-withdrawn peers. When re-assessed at age four and again at age seven, these same children were described as shy and relatively inactive.

Some have argued for a relationship between childhood social withdrawal and adult schizophrenia (e.g., Watt, 1978). Strain, Cooke, and Apolloni (1970) reviewed both retrospective and prospective studies of the relationships between childhood social withdrawal and adult schizophrenia. In general, while retrospective studies tend to support a relationship between childhood social withdrawal and adult schizophrenia, prospective studies fail to support such findings. That is, while many adult schizophrenics may have been withdrawn as children, socially withdrawn children tend not to become adult schizophrenics. A number of methodological problems with these retrospective investigations may account for the discrepant findings : (1) data collectors were aware of the objectives of the study; (2) diverse sources of information were used; and (3) most studies had no specific criteria by which to judge social withdrawal (Strain et al., 1970).

In contrast to socially aggressive behavior, there are few long term investigations of socially withdrawn behavior. Moskowitz, Schwartzman, &

Ledingham (1985) reviewed four available studies and concluded that results were highly variable. Bronson (1966) reported stability coefficients of .72 for males and .65 for females. Wiggins and Winder (1961) calculated a stability coefficient of .52 for males. Kohn (1977) reported a still lower stability coefficient of .39 for a combined group of males and females. Finally, Gersten, Langner, Eisenbery, Simcha-Fagen, and McCarthy (1976) found a stability coefficient of .31 for a combined group of males and females. Moskowitz et al. (1985) discussed methodological and sample differences among these studies which may account for the inconsistent findings. Each study used a different source of information for defining social withdrawal (teacher ratings, peer nominations, parent ratings, and psychologist ratings) and the duration of the intervals between measurements varied from six months to five years. In addition, there were considerable demographic differences among the samples.

Moskowitz et al. (1985) recently completed a large scale prospective study examining the stability of patterns of behavioral disturbance. They identified aggressive, withdrawn, aggressive-withdrawn, and control (neither aggressive or withdrawn) children on the basis of a peer nomination

procedure known as the Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976). Three age cohorts of children separated in age by three years served as subjects. The initial assessment period occurred while the cohorts were in first, fourth, and seventh grades. The second assessment period occurred while the cohorts were in fourth, seventh, and tenth grades, respectively. Moskowitz et al. (1985) reported significant differences in stability as a function of grade level at which the initial assessment was conducted. Withdrawal as assessed at grade 1 was relatively unstable for both girls and boys. In contrast withdrawal was found to be moderately stable (and comparable with the stability of aggression) when identified at grades four or seven. Again, no sex differences were observed. The stability coefficients for each cohort were as follows: (1) at grade one, - .05 for boys and .26 for girls; (2) at grade four, .61 for boys, and .42 for girls; and (3) at grade seven, .65 for boys and .55 for girls. The authors also explored the stability of the group classification scores on the PEI. That is, the authors calculated how likely it was that children would remain in the same extreme group when assessed three years later. They found that one third of withdrawn children

remained in the extreme withdrawn group three years later. One third of the control group, but only one fifth of the aggressive and aggressive-withdrawn groups remained in the same groups three years later. In addition, withdrawn children were found to become more withdrawn over time. These results strongly suggest that social withdrawal is not a transient phenomenon, and that it should not be ignored.

Features of Social Withdrawal

Social withdrawal in children has been identified and assessed using widely varied criteria. The following review focuses on different features which have been associated with social withdrawal.

Social Withdrawal: Behavioral observations of peer interaction.

Social withdrawal has been identified and assessed on the basis of both the quantity and quality of peer interaction. A number of researchers have targeted as withdrawn those children who display low frequencies of peer interaction (e.g., O'Connor, 1969; Evers & Schwartz, 1973; Walker & Hops, 1973; Gottman, Gonso, & Rasmussen, 1975). Socially withdrawn children are those who spend much time engaged in solitary play as compared to relatively little time interacting with peers. For example, Gottman et al.

(1975) identified a group of isolated (withdrawn) third and fourth grade children on the basis of high rates of solitary play coupled with low rates of peer interaction. According to Wanlass and Prinz (1982), equating social withdrawal and low frequency of peer interaction carries the assumption that "regardless of the causes or the effects, a child who interacts at a low rate is missing out on developmentally important socialization experiences" (p. 39).

In addition to displaying lower overall rates of peer interaction, socially withdrawn children also have been found to engage in low rates of positive peer interaction (e.g., Beck, Forehand, Wells & Quante, 1978; Bornstein, Bellack, & Hersen, 1977; Cooke & Apolloni, 1976; Whitehill, Hersen, & Bellack, 1980). Cooke and Apolloni (1976) observed the free play of six to nine year old, learning disabled children and found socially withdrawn children to be deficient in behaviors such as smiling, sharing, positive physical contact, and verbal compliments. Similarly, Bornstein et al. (1977) and Beck et al. (1978) reported that socially withdrawn children exhibited poor eye contact, low voice volume, and inability to make appropriate verbal requests on a role play test. Finally, Whitehill et al. (1980) found that withdrawn children exhibited impaired

conversation skills on a role play test. In particular, withdrawn children showed fewer informational statements, open-ended questions, and requests for shared activity than did their socially competent counterparts. This study is somewhat unusual in that the authors used multiple criteria to identify and assess socially withdrawn children. They used teacher ratings, behavioral observations of solitary play, and the above-mentioned conversation skills role play test.

Social Withdrawal: Sociometry.

Sociometric assessment is a technique for determining the social acceptance of individuals within a group of peers. There are two types of sociometric measures: the peer nomination sociometric and the peer rating sociometric. Peer nomination sociometrics include positive and negative nomination procedures. With peer nomination procedures each child is asked to list a certain number of children with whom he/she most (positive nominees) or least (negative nominees) like to play. Foster and Ritchey (1979) cautioned that the use of negative nomination sociometrics may serve as a potential "stimulus for group members to increase their negative interactions" with the nominated children (p. 629). As such many school systems do not allow the use of negative

nomination sociometric procedures. However, there is little available research examining the ethical ramifications of the use of negative nomination procedures. Hayvren and Hymel (in press) provided the only published data addressing this issue. They reported that neither positive or negative nomination sociometric procedures affected the behavior of preschoolers towards nominees.

Given that many school systems do not allow the use of negative nomination procedures, a substantial body of research relies on the sociometric rating procedure. The rating procedure requires the child to rate, on a 5-point Likert-type scale, how much he/she would like to play with each of his/her classmates. Each child's score reflects the average score that child received from the rest of his/her classmates. With the rating procedure, individual children are not singled out or nominated as disliked.

There is research to suggest that nominations and ratings tap different aspects of sociometric status and friendship. Sociometric nominations appear to reflect "ideal" popularity. That is, for a significant number of children, their sociometric nominees are not likely to be the children with whom they actually interact (Hops & Levin, 1984). In

contrast, sociometric ratings seem to reflect general acceptance or likeability (Hymel & Asher, 1977).

Socially incompetent children may have low levels of peer acceptance and/or high levels of peer rejection. According to Gottman (1977), children with low rates of peer interaction (i.e., socially withdrawn children) are not necessarily of low sociometric status. Gottman (1977) found no relationship between peer acceptance and rate of interaction in his observational study of preschool children. However, this is in contrast to a large body of research suggestive of a relationship between low rates of peer interaction and low sociometric status (e.g., Hartup, Glazer, & Charlesworth, 1967; Hops & Greenwood, 1981).

Recently the concurrent use of positive and negative nomination sociometrics has allowed researchers to identify four sociometric status groupings in children: popular, rejected, neglected, and controversial (e.g., Peery, 1979; Coie, Dodge, & Capotelli, 1982). Popular children are characterized by high acceptance (i.e., positive nominations) and low rejection (i.e., negative nominations). Rejected children are characterized by low acceptance and high rejection. Neglected children are characterized by low acceptance and low rejection. Finally,

controversial children are characterized by high acceptance and high rejection.

As can be seen, a child may be identified as sociometrically neglected. The terms "neglected", "isolated", and "withdrawn" are often used interchangeably. It is important to remember that a child may be behaviorally withdrawn (isolated, neglected) or sociometrically withdrawn (isolated, neglected). As of yet, the relationship between behavioral and sociometric withdrawal is unclear. Most published studies have used small sample sizes of preschool children. Thus little comprehensive information is available about the sociometric status of behaviorally withdrawn school-age children.

Recently researchers have begun to examine more closely the four sociometric status groupings described above. Distinctive behavioral patterns have emerged in research that identifies children according to sociometric groupings and then examines behavioral correlates of such status groupings (Coie et al., 1982; Dodge, Coie, & Brakke, 1982; Connolly, 1983). In her review of sociometric procedures for assessing children's social competency, Connolly (1983) described behavioral differences among the four sociometric status groups. In particular, popularity was associated with cooperation, helpfulness, and

leadership; sociometric rejection was associated with disruptiveness and aggression; sociometric isolation was associated with shyness, low visibility, and solitary play; and controversial sociometric status was associated with both prosocial and antisocial behaviors.

Dodge et al. (1982) videotaped third, fourth, and fifth grade boys while on the playground and in the classroom. The authors looked for behavioral differences among rejected, neglected, popular, and average sociometric status boys. Results indicated that neglected children differed from all other status groups. Neglected boys exhibited more task-appropriate solitary play and fewer social approaches than did rejected, popular, or average status boys.

In a second study, Dodge (1983) found that the behavior of boys during initial encounters with peers was predictive of the sociometric status that they would come to acquire. He videotaped the initial encounters of unfamiliar boys who were brought together for a series of play groups then later conducted sociometric assessments with these same children. Specifically, Dodge (1983) found that boys who became neglected engaged in more solitary play, less conversation with the adult group leader, and less extraneous verbalizations than children who

became average status. The author concluded that the boys who became neglected engaged in "inept peer interaction in the absence of antisocial behavior" (p.1397). Of note, boys who became neglected did not differ from boys who did not become neglected in terms of the frequency of peer initiations in these early encounters. That these boys still became neglected suggests that the the negative reaction (i.e., becoming sociometrically neglected) resulted from the quality rather than quantity of peer interaction.

A common problem with the interpretation of results from sociometric studies is that sociometric grouping procedures vary dramatically from study to study. As an example, Berler, Allen, and Burge (1982) examined the comparability of sociometric status grouping procedures used by Gronlund (1959) and Peery (1979). It is discouraging to note that little comparability was found. Fifty percent of Gronlund's sociometric isolates did not fit into any of Peery's categories, and fifty percent of Gronlund's sociometric rejects fit into Peery's sociometric isolation category.

In addition, the inconsistent use of same-sex versus opposite-sex sociometric nominations causes confusion in the literature. Asher and Hymel (1981) reviewed 55 sociometric studies and found that 71%

used both same and opposite sex sociometric nominations to determine status groupings. Preadolescent children interact with same sex peers as their primary social membership group and consistently give and receive higher positive nominations to and from same sex peers; however, these criteria are not used by the majority of researchers in judging sociometric status (Asher & Hymel, 1981). Thus even while preadolescent children consistently show sex cleavage in their friendship choices, most researchers do not use only same-sex sociometric ratings and nominations to determine sociometric groupings.

Such variability in sociometric status grouping procedures likely leads to differential outcomes in identifying children as belonging to certain status groups and in determining the behavioral correlates of those status groups. While statements are made about the behavior of sociometric isolates as if this sociometric group represents a homogeneous population, this remains an empirical question.

Social Withdrawal: Teacher ratings.

Teachers are important sources of information regarding the behavior of school-age children. In fact, the teacher is the primary referral source for special services within the school (Strain, Cooke, & Apolloni, 1976). Naturally, it is important to know

whether teachers are able to identify accurately those children in need of special services. That is, do teachers identify the same students targeted by independent assessments using other sources? (Greenwood et al., 1977).

There are data to suggest that teachers are able to identify children in need of special services. Teacher ratings and nominations have been found to discriminate among children having referral histories for psychological services (Walker, 1970), observed levels of acceptable classroom behavior (Nelson, 1971), and the amount and quality of social interaction directed at teachers by students (Brophy & Good, 1970; Walker & Buckley, 1973).

In regards to the present investigation, the question is whether teachers can identify accurately socially withdrawn children. Greenwood, Walker, Todd, and Hops (1979) found that teacher rankings of interactive frequency and appraisals of popularity in withdrawn preschool children correlated moderately with observed social interaction rates. In addition, 77% of the time teachers were able to correctly rank order the lowest interactor within five rankings.

Connolly and Dodge (1981) instructed teachers to rank order the frequency and extensiveness of peer interaction in preschool children. They also gathered

sociometric data using the peer nomination procedure. Results revealed a significant relationship between teacher rankings and peer popularity. The authors reported that teacher rankings were as good or better predictors of actual observations of assertive peer interaction than were peer sociometric nominations.

Most studies of teacher ratings of social withdrawal have been conducted using preschool populations. One exception is an investigation by Dorr, Stephens, Pozner, and Kloot (1980). The authors used the AML teacher rating scale (Cowen, Dorr, Clarfield, Kreling, McWilliams, Pokracki, Pratt, Terrell, & Wilson, 1973) with fourth, fifth, and sixth grade children. The AML contains a subscale which measures moodiness and withdrawal. The authors reported that moodiness scores were stable across time and concluded that "teachers seem to be able to make reasonable judgements about this 'intrapsychic' dimension" (p. 350).

Available data are promising regarding the use of teacher ratings to identify social withdrawal in children. However, as most research has been conducted with preschool children, the ability of teachers to identify social withdrawal in elementary school-age children is less clear.

Social Withdrawal: DSM III.

While the DSM III (APA, 1980) does not recognize social withdrawal as a diagnostic entity per se, social withdrawal is a feature of a number of disorders. Social withdrawal is noted as a component of Separation Anxiety Disorder, Avoidant Disorder of Childhood or Adolescence, Schizoid Disorder of Childhood or Adolescence, Identity Disorder, Infantile Autism, Child-onset Pervasive Developmental Disorder, Dysthymic Disorder, and Adjustment Disorder with withdrawal.

In the extreme, social withdrawal has been termed "autistic aloneness" (Kanner, 1943). Such extreme social withdrawal is a cardinal sign of both Infantile Autism ("pervasive lack of responsiveness to other people" (APA, 1980; p.89) and the Pervasive Developmental Disorder ("gross and sustained impairment in social relationships" (APA, 1980; p.91).

Social withdrawal appears to be the central feature of both the Avoidant disorder and the Schizoid disorder. In order to receive a diagnosis of Avoidant disorder, a child must show "persistent and excessive shrinking of contact with strangers" and "avoidance behavior sufficiently severe to interfere with social functioning in peer relationships" (APA, 1980; p. 55). Likewise, a diagnosis of Schizoid disorder requires

"no close friend of similar age, other than a relative or similarly socially isolated child, no apparent interest in making friends, no pleasure from usual peer relationships, general avoidance of nonfamilial social contacts (especially with peers) and no interest in activities that involve other children" (APA, 1980; p. 61).

In addition, social withdrawal is described in reactions to stressful events (i.e., Adjustment disorder with withdrawal), uncertainty about identity issues (i.e., Identity disorder), and separation from major attachment figures (i.e., Separation anxiety disorder). Finally, social withdrawal can be a criterion for the diagnosis of Dysthymic disorder. Somewhat surprisingly, a diagnosis of Major Depressive Disorder is made without specific consideration of social withdrawal.

While social withdrawal is noted as a feature of many DSM III diagnoses, a paucity of empirical evidence exists as to the actual role of social withdrawal in such childhood psychopathology. For example, the DSM III diagnosis most closely resembling "pure" social withdrawal is the Avoidant Disorder of Childhood. Currently, there are no published clinical accounts or experimental studies of the Avoidant Disorder. A preliminary study at the Child and

Adolescent Anxiety Disorders Clinic at Western Psychiatric Institute and Clinic aimed at examining the coexistence of the Avoidant disorder and other childhood diagnoses currently is underway (Francis & Last, 1986). Of 91 children referred to and evaluated at the Child and Adolescent Anxiety Disorders Clinic over a 20 month period, 10 met diagnostic criteria for Avoidant disorder. All children also met diagnostic criteria for other anxiety disorders of childhood (Separation Anxiety Disorder, Overanxious Disorder). Thus, the Avoidant Disorder was never seen in isolation nor was social withdrawal the child's primary presenting complaint. In fact, the proposed revision of the DSM III (DSM III-R) eliminates the Avoidant disorder because it is thought to occur only in the presence of another disorder. It is of concern that decisions regarding the inclusion and exclusion of such a disorder are being made in the absence of published data supporting either position.

In sum, the relationship between social functioning and diagnoses of childhood psychopathology is not clear. While current diagnostic classification schemes recognize certain disorders in which social withdrawal is central, proposed revisions eliminate certain of these disorders due to a lack of substantiating clinical or experimental data.

Presently, there is little information by which to make any definitive statements regarding the relationship between social withdrawal and DSM III childhood psychopathology.

Social Withdrawal: Internalizing dimension.

Studies of the classification and taxonomy of childhood psychopathology often have proposed broad-band categorizations (e.g., Quay, 1979). Researchers have employed sophisticated multivariate procedures which examine statistical covariation among signs and symptoms to identify these broad-band syndromes. Such analyses generally make use of the behavioral ratings of significant others in the child's environment.

Social withdrawal has been subsumed under the broad-band "internalizing" dimension (Achenbach, 1966; 1978). The "internalizing" dimension is also referred to as the "overcontrolled" syndrome (Achenbach & Edelbrock, 1978). Achenbach and Edelbrock (1979) reviewed studies employing multivariate taxonomic procedures and reported that a broad-band "overcontrolled" syndrome was found consistently in 14 different studies. The sources of the ratings provided in the reviewed studies included parents, teachers, mental health professionals, and case histories.

While such broad-band syndromes have been identified consistently and reliably across a number of different populations and using various rating sources, questions remain as to the practical and clinical utility of such expansive categorizations (Quay, 1979). That is, these broad-band syndromes provide little information as to the specific situations in which difficulties might arise. In fact, they provide little information as to the nature of the actual difficulty itself. For example, labeling a child as "internalizing" does not give any information regarding the situations in which that child would be expected to exhibit "internalizing" behavior, nor information about the kind of "internalizing" behavior that would be expected (e.g., nervousness, sadness, or timidity). In response to such problems, the delineation of narrow-band categories has been attempted. Social withdrawal has been examined in relationship to narrow-band syndromes reflecting anxiety (e.g., Quay, 1979) and depression (Petti, 1983). Decreased social interaction has been noted in a substantial majority of depressed children (Kashani, Barbero, & Bolander, 1981). In addition, Poznanski and Zruel (1970) reported social withdrawal in 14 cases of depressed children. According to Puig-Antich, Blau, Mark, Greenhill, and Chambers (1978)

social withdrawal is the most frequent, consistent disturbance in depressed children. Even given all the empirical evidence suggesting that social withdrawal is one of the cardinal features of childhood depression, social withdrawal is not among the DSM III diagnostic criteria for the disorder.

In addition, Quay (1979) identified an "anxiety-withdrawal" syndrome which is characterized by fearfulness, tension, shyness, timidity, friendlessness, self-consciousness, reticence, and low self confidence. Thus the essential features of the "anxiety-withdrawal" dimension are anxiety and social withdrawal. The role of depression in the "anxiety-withdrawal" dimension is less clear.

In sum, currently there exists no clear distinction between social withdrawal and other forms of childhood psychopathology such as anxiety and depression (Wanlass & Prinz, 1982). According to the results of available multivariate taxonomic procedures, social withdrawal is not an entity in and of itself; rather, social withdrawal appears to be associated with other "internalizing" symptoms such as nervousness and sadness.

Social Withdrawal: Cognitive factors

Generally, there is little information currently available delineating the role of cognitive factors in

children's social behavior. Notable exceptions are the investigations by Shure and Spivack (1980), Asarnaw and Callan (1985), and Stefanek, Baldock, Ollendick, Francis, and Yaeger (in press). Shure and Spivack (1980) reported that socially unskilled preschool and kindergarden children evidenced poor interpersonal problem-solving skills.

Asarnaw and Callan (1985) examined the social problem-solving strategies of popular and unpopular fourth and fifth grade boys. The authors assessed these boys on their ability to (1) generate alternative solutions to problems; (2) evaluate possible solutions; (3) describe cognitive self-statements; and (4) rate the likelihood of possible cognitive self-statements. They found that unpopular boys generated fewer solutions, fewer mature/assertive solutions, and more aggressive solutions than their popular counterparts. In addition, unpopular boys used less adaptive planning strategies and evaluated aggressive responses more positively and appropriate solutions more negatively than did popular boys.

Finally, Stefanek et al. (in press) investigated the use of cognitive self-statements by popular, aggressive, and withdrawn fourth grade boys and girls. Children participated in a role-play test involving social situations. Following each role-play scene the

child was instructed to report his/her thoughts using a self-statement test devised by the authors. The cognitive self-statement test included both facilitating ("I was thinking that he/she would be nice and let me play") and inhibiting ("I was afraid that he/she didn't want me to play") items. Results indicated that both withdrawn and aggressive children had a lower facilitating-inhibiting ratio than did popular children.

Purpose of present study.

As is evident from the preceding review, childhood social withdrawal is multifaceted. Relationships have been purported between social withdrawal and quantity of peer interaction, quality of peer interaction, sociometric status, social skills deficits, and childhood psychopathology. Specifically, withdrawn children have been characterized by "low rates of interaction with peers, low sociometric choice (i.e., lack of popularity), rejection by peers, social skills deficits, anxiety, unhappiness, active avoidance of peers, daydreaming, passive-unassertive style, and oversensitivity to criticism or failure" (Wanlass & Prinz, 1982; p.41). There is little information available regarding the relationships among such behaviors in children identified as withdrawn. This primarily is because

researchers have not attempted to conduct multimethod assessments of childhood social withdrawal (Greenwood et al., 1977).

The purpose of the present study was to examine social withdrawal in a comprehensive manner. That is, multiple measures of the possible correlates of social withdrawal were used: self-report measures of anxiety, fear, and depression; significant other reports of withdrawal and unpopularity; behavioral observations of social interactions; and cognitive assessment procedures.

Experimental Hypotheses.

(1) As the ratings of parents, teachers, and mental health workers have indicated relationships among social withdrawal, depression, anxiety, and fear, it was expected that withdrawn children would self-report higher levels of depression, anxiety, and fear than would well-adjusted children.

(2) It was expected that the ratings of significant others would discriminate between withdrawn and well-adjusted children. In particular, it was hypothesized that parents, teachers, and peers would rate withdrawn and well-adjusted children differently.

(3) It was expected that withdrawn children

would show less peer-oriented social behavior than would well-adjusted children.

(4) It was hypothesized that when presented with descriptions of social situations, the cognitions of withdrawn children would differ from those of well-adjusted children. That is, it was expected that withdrawn children would have more inhibiting self-statements (i.e., negative evaluations and off-task thoughts) and fewer facilitating self-statements (i.e., positive evaluations and task-oriented thoughts) would than well-adjusted children.

(5) Finally, it was expected that withdrawn children would be less socially skilled than well-adjusted children, as assessed by a behavioral role-play test.

METHOD

Subjects. Subjects were fourth and fifth grade children from four public elementary schools in the Montgomery County School System, Virginia.

Subject Selection. Subject selection was made on the basis of teacher nominations. Ten fourth and fifth grade teachers were asked to nominate withdrawn and well-adjusted children from their classrooms using the following definitions: (1) withdrawn - "A type of child regularly seen in classrooms is the withdrawn child. This child is shy and prefers to be alone most of the time. This child seldom speaks up for him/herself. If this child becomes the center of attention, he/she appears uncomfortable. This child avoids assuming any type of leadership and may appear sad, fearful, and easy to offend"; (2) well-adjusted - "Another type of child regularly seen in the classroom is the well-adjusted child. This child usually is outgoing, friendly, and likes to be with other children. This child usually will speak up for him/herself, and is oftentimes perceived by other children, as well as the teacher, to be a leader. This child usually appears happy and to be well-liked by other children."

Teachers nominated, and parental permission was obtained for, 30 withdrawn (18 female, 12 male) and 30 well-adjusted (17 female, 13 male) children.

Measures. A multimethod approach was used to assess the correlates of social withdrawal: self-report measures, significant other-report measures, behavioral observations, a structured interview, a role-play test, and a cognitive self-statement test. All measures can be found in Appendix A.

Self-report measures

Self-report measures included measures of anxiety, depression, and fear.

Revised Children's Manifest Anxiety Scale. The Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) is a 37 item self-report scale which measures cross-situational anxiety. Children were instructed to "read each question carefully. Put a circle around the word YES if you think it is true about you. Put a circle around the word NO if you think it is not true of you."

The RCMAS contains three subscales: physiological anxiety (nine items), worry/oversensitivity (ten items), and concentration anxiety (nine items) (Reynolds & Richmond, 1978; Reynolds & Paget, 1983). In addition to the 28 anxiety items, a nine item Lie Scale is included. Each

item is scored as zero or one for a range of RCMAS total anxiety scores from zero to 28. Representative items include: "Often I have trouble getting my breath" (physiological anxiety), "My feelings get hurt easily" (worry/oversensitivity), "It is hard for me to keep my mind on my schoolwork" (concentration anxiety), and "I like everyone I know" (lie scale).

Reynolds and Richmond (1978) reported adequate reliability and internal consistency for the scale, and presented normative data for the total anxiety score. For boys and girls between the ages of nine and 11, average total anxiety scores range from 13.25 to 13.96.

Children's Depression Inventory. The Children's Depression Inventory (CDI; Kovacs & Beck, 1977) is a 27 item self-report questionnaire which instructs children to "pick out the one sentence from each group that best describes how you have been recently." Each item is scored from zero to two resulting in a range of total scores from zero to 54. A representative item is "I am sad once in a while OR I am sad many times OR I am sad all the time." The CDI is a downward extension of the Beck Depression Inventory for adults (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961).

Finch and Lewis (1984) reviewed the use of the CDI with normal and disturbed youngsters. They

concluded that data are equivocal regarding the extent to which CDI scores can discriminate between depressed and nondepressed emotionally disturbed children or between depressed and normal children. While Kovacs (1978) reported that the CDI can be used to identify depressed children, O'Brien (1982) and Saylor, Finch, Spirito, and Bennett (1983) discovered no significant correlation between CDI score and therapist ratings of depression.

Smucker, Craighead, Craighead, and Green (1986) recently completed a study of some of the psychometric properties of the CDI. These authors studied a large sample of children and adolescents from grades three through nine. Their results indicated acceptable reliability for use of the CDI within these age ranges. In addition they reported normative data suggesting a mean CDI score of 9.09, standard deviation of 7.04, and cutoff of 19 indicative of the upper 10% of the population.

Fear Survey Schedule for Children - Revised. The Fear Survey Schedule for Children - Revised (FSSC-R; Ollendick, 1983) is an 80 item self-report questionnaire to which children are instructed to "read each fear item carefully and place an X in the box in front of the word that best describes your level of fear (none, some, a lot)." Each item is

scored from one to three leading to total fear scores ranging from 80 to 240. The FSSC-R is a recent revision of the Scherer and Nakamura (1968) Fear Survey Schedule for Children.

Ollendick (1983) reported acceptable internal consistency, test-retest reliability, and construct validity for a sample of normal eight to 11 year old children. In addition, he described a meaningful five factor structure consisting of the following factors: fear of failure and criticism, fear of the unknown, fear of injury and small animals, fear of danger and death, and medical fears.

In a recent study of normative properties of the FSSC-R, Ollendick, Matson, and Helsel (1985) examined a sample of seven to 18 year old children and adolescents. Significant gender differences for total fear score and for each of the five factor scores were reported with females consistently reporting higher levels of fear than males. In particular, the mean total fear score for males was 123.35 and for females was 142.64. Mean scores for each of the factors were as follows: Factor 1 - males=31.55, females=34.53; Factor 2 - males=25.82, females=29.86; Factor 3 - males=30.52, females=38.29; Factor 4 - males=24.90, females=28.15; and Factor 5 - males=10.57, females=11.80. The authors reported no significant

age differences in total fear score or on any of the factors.

Significant Other-Report Measures

Significant other-report measures included teacher, parent, and peer measures.

AML. The AML (Cowen et al., 1973) is an 11 item teacher rating scale designed to identify adjustment problems in children. The AML consists of three subscales: Aggression (five items), Moodiness (five items), and Learning problem (one item).

Representative items include: "gets into fights or quarrels with other students" (aggression); "has to be coaxed or forced to work or play with other pupils" (moodiness); and "has difficulty learning" (learning problem). Each item is rated on a five point scale ranging from "seldom" to "all of the time."

Dorr et al. (1980) recently reported on the use of the AML with fourth, fifth, and sixth grade children. The authors reported reasonable reliability and internal consistency among the three subscales. In addition, they reported no gender differences on total score or on any of the subscales. Preliminary norms were reported. Of interest for the present study, Moodiness mean scores for fourth grade males and females were 12 and 11, respectively, and for

fifth grade males and females were 15 and 12, respectively.

Revised Problem Behavior Checklist. Quay and Peterson (1983) developed the Revised Problem Behavior Checklist. This parent rating instrument consists of 89 behaviors which are rated on a 3-point scale. Six dimensions are included in the checklist: conduct problems, socialized aggression, attention problem-immaturity, anxiety-withdrawal, psychotic behavior, and motor excess. For purposes of the present study, parent ratings of the anxiety-withdrawal dimension were used.

The Problem Behavior Checklist has been researched widely and possesses acceptable reliability when used by people who are highly familiar with the child. In addition, validity has been demonstrated in a number of different studies (Ollendick & Cerny, 1981).

The return rate for parent questionnaires was only 55% (withdrawn n=17, well-adjusted n=16). There was no significant difference in return rate between withdrawn and well-adjusted children, however.

Peer Sociometric Measures. Sociometric assessment was conducted in each classroom from which subjects were selected. Both positive peer nomination and peer rating sociometrics were used. Only same-sex

ratings and nominations were considered since sex appears to influence elementary school children's choices of whom they like (Gronlund, 1959; Singleton & Asher, 1977). With the positive peer nomination sociometric, each child was provided with a classroom roster and asked to circle the names of the three children with whom he/she most liked to play. With the peer rating sociometric, each child was asked to rate, on a five point Likert-type scale, how much he/she would like to play with each of his/her classmates. A child's same-sex sociometric rating reflected an average score that the child received from the rest of his/her same-sex classmates.

Sociometric methodology has been used extensively in the study of children's peer relationships. Positive nomination scores have been related to initiation and reception of positive social interaction (Gottman, Gonso, & Rasmussen, 1975), peer group entry skills (Putallaz & Gottman, 1981), and behavioral ratings of cooperation and leadership (Coie, Dodge, & Cappelletti, 1982). In addition, test-retest reliability for the positive nominations of elementary school children has been found to average .65 over a six week period (Coie, Dodge, & Cappelletti, 1982).

For peer rating sociometrics, test-retest reliability with elementary school children has averaged at around .80 (Oden & Asher, 1977). Rating measures have been found to be sensitive to changes in social status following the implementation of social skills training (Oden & Asher, 1977).

Recently, researchers have advocated the use of both types of sociometric procedures in the assessment of social competence (Asher & Renshaw, 1981; Bennett, 1982; Vosk, Forehand, Parker, & Rickard, 1982). As the school system involved in the present study did not allow the use of negative nomination sociometric procedures, sociometric ratings and positive sociometric nominations were collected.

Other Assessment Measures.

Other assessment measures included naturalistic behavioral observations, a structured interview, a role-play test, and a cognitive self-statement test.

Behavioral Observations. In vivo behavioral observations of social interactions were conducted. Observations took place during organized games and free play periods. Observed behaviors included amount of positive and negative interactions, peer and nonpeer interactions, and peer initiations (Ollendick, 1981). Scores for quantity, quality, and initiation were computed. Quantity of interaction was calculated

by adding up the total amount of positive and negative peer interaction. Quality of interaction reflected the total amount of positive interaction. Initiation was computed by summing the number of positive and negative peer initiations.

Observations were conducted using a time-sampling procedure. Each observation period consisted of 18 five second observation intervals alternated with 18 five second recording intervals. Each child was observed on three separate occasions resulting in a total of 4.5 minutes of observation. Observers were two undergraduate research assistants blind to the status of the observed children. Each observer underwent extensive training in the observation procedure. Inter-observer agreement was calculated on 25% of the observations and was found to be .89.

Structured Interview. A structured interview was administered in order to gather additional information from each child regarding fear, worry, and anxiety. Portions of the Child Assessment Schedule (CAS; Hodges, 1978) were used. The CAS is a structured diagnostic interview based on DSM III criteria. Hodges, Kline, Stern, Cytryn, and McKnew (1982) reported that the CAS provides a systematic method for obtaining information regarding a child's psychological functioning. Pilot administrations of

the CAS revealed that the entire interview took approximately one and one half hours to complete. Due to time limitations, a shortened CAS was devised. The portions of the CAS selected for use in the present study covered the content areas of school, friends, activities, fears and anxieties, and worries and concerns. Since only portions of the CAS were used, diagnoses could not be determined. Thus, a total "internalizing pathology" score was calculated based on Hodges (1982) delineation of critical items. The shortened CAS took approximately 20 minutes to complete.

Interviewers were an undergraduate research assistant and the author. Training consisted of repeated practice administrations of the shortened CAS.

Role-play Test. Twelve scenes modeled after those from the Behavioral Assertiveness Test for Children (Bornstein, Bellack, & Hersen, 1977, 1980) and described elsewhere by Ollendick (1981) were used in the role-play assessment. Six scenes called for positive assertion and six scenes called for negative assertion. Further, half of the scenes utilized an adult female role play partner while the other half utilized an adult male role play partner.

The following examples are illustrative of the positive and negative scenes used: (1) Your friend borrowed your bike and said he'd bring it right back. He returns with it several hours later and now you want to use it. He says "I want to keep your bike until tomorrow"; and (2) You draw a picture in art class and the girl next to you says "You should draw more pictures. You're really good at it."

The procedure used in this study allowed for an extended interchange along the lines suggested by Curran (1978) rather than a single response interaction. The role-play partner followed the child's initial response to each scene with two additional counterresponses for a total of three interchanges per scene. While counterresponses varied depending on whether the child was assertive or unassertive, counterresponse variations were standard across children. Responses to the scenes were audiotaped and retrospectively rated for component behaviors typically examined in social skill studies.

All components, other than eye contact, were rated retrospectively from the audiotapes. Eye contact was rated by the role-play partner and/or narrator during the administration of the test. The following components were rated for each of the three

interchanges to the 12 scenes: (a) eye contact - looking at the partner at least once during the spoken response; (b) response latency - the amount of time between the prompt and the child's verbal response; and (c) response length - the number of words in the child's response. In addition, the content associated with the positive assertion scenes was scored in one of four categories: (1) denial - verbal content negating the positive compliment; (2) aggression - verbal content reflecting an aggressive or hostile response; (3) acceptance - verbal content indicating mere acceptance of the compliment; and (4) praise or appreciation - verbal content expressing gratitude or approval. Positive assertion content was scored only for the six scenes involving giving or receiving compliments. Negative assertion content was also scored in one of four categories: (1) compliance - verbal content indicating agreement with the role-play partner; (2) aggression - verbal content reflecting an aggressive or hostile response; (3) assertion - verbal content resisting the role-play partner in a minimal way; and (4) request for new behavior - verbal content requesting a change in the role-play partner's behavior. Negative assertion content was scored only for the six scenes involving

standing up for one's rights and refusing unreasonable requests.

Content measures and eye contact were scored on an occurrence/nonoccurrence basis for each of the children's three responses to the twelve scenes. Response latency was recorded in seconds and response length was recorded as the number of words spoken. In order to derive a total content score, each level of positive and negative content was assigned a numerical value as follows: positive or negative aggression (0); positive denial or negative compliance (1); positive acceptance or negative assertion (2); and positive praise/appreciation or negative request for new behavior (3). This strategy was used by Ollendick, Hart, and Francis (1985) and was found to discriminate the verbal behavior of popular and unpopular elementary school children.

Cognitive Self-Statement Test. Cognitive assessment was completed using a self-statement test patterned after those of Zatz and Chassin (1983) and Stefanek et al. (in press). Four social situations like those used by Stefanek et al. (in press) were presented to each child in a counterbalanced fashion. Following presentation of each situation, the child was given a list of self-statements and asked to endorse those thoughts that he/she would have been

thinking had he/she actually been in the described situation. The self-statement test was modeled after that used by Zatz and Chassin (1983) in their examination of the cognitions of test anxious children. In the present study, the actual self-statements were altered to reflect social situations rather than testing situations. Self-statements were coded into four categories: positive evaluation, negative evaluation, on-task thoughts, and off-task thoughts. Representative items include: "The other child probably thinks I'm dumb" (negative evaluation); "I am nervous and worried" (off task thought); "I do well in situations like this" (positive evaluation); and "Stay calm and relaxed" (on task thought).

Procedure.

Teachers were asked to nominate withdrawn and well-adjusted children as described above. Following this, teachers completed the AML teacher rating form on each identified child, and parental permission for participation was obtained. Parent rating forms were mailed to participating parents along with self-addressed stamped envelopes and instructions to return forms as soon as possible.

Self-report measures of anxiety, fear, and depression were administered in each participating classroom. A research assistant read each measure

aloud and answered any questions. In addition, peer sociometric nominations and ratings were collected in each classroom.

Target children were seen individually and child permission for participation was obtained. Following this, children completed the structured interview and cognitive self-statement test. On a separate occasion each child was seen again individually and administered the BATC-R.

Finally, each child was observed during recess and in vivo behavioral observations were completed.

RESULTS

Correlational Analyses.

Pearson product moment correlations were calculated among the following self-report, other-report, and observation variables: CDI total score, FSSCR total score, RCMAS total anxiety score, interview total score, sociometric rating, sociometric nomination, teacher moodiness rating, parent anxiety-withdrawal rating, and quantity of peer interaction. This correlation matrix is displayed in Table 1. As can be seen, a number of statistically significant correlations were discovered. CDI total depression score was correlated positively with RCMAS total anxiety score ($r=.73$) and interview "internalizing pathology" score ($r=.39$), and negatively with sociometric rating ($r=-.36$) and sociometric nomination ($r=-.26$). The FSSCR total fear score was correlated positively with RCMAS total anxiety score ($r=.46$) and interview "internalizing pathology" score ($r=.46$), and negatively with sociometric nomination ($r=-.36$). RCMAS total anxiety score was correlated positively with interview "internalizing pathology" score ($r=.58$) and negatively with sociometric nomination ($r=-.34$). Sociometric rating was correlated positively with sociometric nomination ($r=.64$) and negatively with

teacher moodiness rating ($r=-.29$). Teacher moodiness rating was correlated positively with interview "internalizing pathology" score ($r=.31$) and negatively with quantity of peer interaction ($r=-.30$).

In general, most significant correlations were among self-report measures (including the interview) and peer report measures. No significant relationships were uncovered between parent ratings and any of the other variables.

Initial Multivariate Analyses

Given the large number of, and relationships among, variables to be examined, an initial multivariate analysis of variance (MANOVA) was computed using self-report, significant other-report, and behavioral observation measures. Variables of interest were CDI total depression score, FSSCR total fear score, RCMAS total anxiety score, same-sex sociometric nominations, same-sex sociometric ratings, teacher Moodiness rating, parent anxiety-withdrawal rating, and quantity of peer interaction. Results of the two (sex) by two (status) MANOVA revealed a significant main effect for status (Wilks' $L=.24$, $F(8,19)=7.57$, $p<.0001$). There was no significant main effect for sex (Wilks' $L=.71$, $F(8,19)=.99$, $p<.45$) or significant sex by status interaction (Wilks' $L=.70$, $F(8,19)=1.01$, $p<.46$). As the MANOVA yielded an

overall status main effect, a series of individual two (sex) by two (status) univariate analyses of variance were completed for each variable.

Self-report measures.

Univariate ANOVAs were computed for each self-report measure. For the CDI total depression score, a significant main effect for status was discovered ($F(1,56)=3.88, p<.05$) with no significant main effect for sex ($F(1,56)=.69, p<.41$) or significant sex by status interaction ($F(1,56)=.00, p<.97$). Thus withdrawn children ($x=9.43$) reported more depressive symptoms than did well-adjusted children ($x=5.50$).

For FSSCR total fear score, significant main effects for sex ($F(1,56)=5.70, p<.02$) and status ($F(1,56)=4.95, p<.03$) were revealed with no significant sex by status interaction ($F(1,56)=.36, p<.55$). Females ($x=141.63$) reported more fear than males ($x=127.20$), and withdrawn children ($x=142.67$) reported more fear than well-adjusted children ($x=128.57$).

Finally, for RCMAS total anxiety score significant main effects for sex ($F(1,56)=6.05, p<.02$) and status ($F(1,56)=4.80, p<.03$) were found with no significant sex by status interaction ($F(1,56)=.13, p<.72$). Females ($x=11.51$) reported higher levels of anxiety than males ($x=7.12$), and withdrawn children

($x=11.60$) reported higher levels of anxiety than well-adjusted children($x=7.67$).

Results of the ANOVAs for the self-report measures are displayed in Table 2. Cell means and standard deviations are displayed in Table 3.

Factor scores.

Further analyses of the self-report measures were undertaken by examining the factor scores for the FSSCR and RCMAS.

FSSCR factors. Pearson product moment correlations revealed that FSSCR factors were significantly and highly correlated. This correlation matrix is displayed in Table 4.

A two (sex) by two (status) MANOVA for FSSCR factors one through five yielded a significant main effect for sex (Wilks' $L=.67$, $F(5,52)=5.01$, $p<.0009$), a trend toward a significant main effect for status (Wilks' $L=.83$, $F(5,52)=2.09$, $p<.08$) and no significant sex by status interaction (Wilks' $L=.97$, $F(5,52)=.30$, $p<.91$). Given these results, univariate two (sex) by two (status) ANOVAs were conducted separately for each FSSCR factor. A significant main effect for sex was found for Factor Three ($F(1,56)=17.39$, $p<.001$) and a trend toward a significant main effect for sex was found for Factor Five ($F(1,56)=3.34$, $p<.07$). In both cases, females reported more fear than males (Factor

Three - female $x=40.4$, male $x=31.8$; Factor Five - female $x=11.6$, male $x=10.0$). Significant status main effects were revealed for three of the five factors: Factor Three ($F()=5.70$, $p<.02$); Factor 4 ($F()=6.97$, $p<.01$); and Factor Five ($F()=5.08$, $p<.03$). In all cases, withdrawn children reported more fear than well-adjusted children (Factor Three - withdrawn $x=39.4$, well-adjusted $x=34.2$; Factor Four - withdrawn $x=30.8$, well-adjusted $x=25.97$; and Factor Five - withdrawn $x=11.9$, well-adjusted $x=9.97$). No significant sex by status interactions were found for any of the five factor scores.

Results of the ANOVAs for the FSSCR factors are displayed in Table 5. Cell means and standard deviations are displayed in Table 6.

RCMAS factors. Pearson product moment correlations revealed that RCMAS factors were significantly and highly correlated. This correlation matrix is displayed in Table 7.

Results of a two (sex) by two (status) MANOVA for the RCMAS factors indicated a significant main effect for sex (Wilks' $L=.83$, $F(3,54)=3.6$, $p<.02$), a trend toward a significant main effect for status (Wilks' $L=.88$, $F(3,54)=2.53$, $p<.07$), and no significant sex by status interaction (Wilks' $L=.95$, $F(3,54)=.98$, $p<.41$).

Given the results of the MANOVA, a series of univariate ANOVAs were conducted for each of the RCMAS factors. A significant main effect for sex was found for Factor Two ($F(1,56)=9.27, p<.004$) with females ($x=4.70$) reporting higher levels of anxiety than males ($x=2.40$). Significant status main effects were discovered for two of the three factors: Factor One - $F(1,56)=4.89, p<.03$; and Factor Three - $F(1,56)=6.09, p<.02$). As predicted, withdrawn children reported higher levels of anxiety than well-adjusted children (Factor One - withdrawn $x=3.93$, well-adjusted $x=2.60$; Factor Three - withdrawn $x=3.20$, well-adjusted $x=1.90$).

Results of the ANOVAs for RCMAS factors are displayed in Table 8. Cell means and standard deviations are displayed in Table 9.

Significant other-report measures.

Two (sex) by two (status) ANOVAs were conducted for each of the significant other-report measures: Moodiness scale score of the AML (teacher), anxiety-withdrawal scale of the RBPC (parent), sociometric ratings (peer), and sociometric nominations (peer). A significant main effect for status was discovered for the AML Moodiness scale ($F(1,56)=26.42, p<.0001$) with withdrawn children receiving higher teacher ratings for moodiness than well-adjusted children (withdrawn

$x=12.48$, well-adjusted $x=7.41$). No significant main effect for sex or sex by status interaction was found for the teacher rating instrument.

For both peer sociometric nominations and ratings, ANOVAs revealed a significant main effect for status (nominations - $F(1,56)=22.48$, $p<.001$; ratings - $F(1,56)=38.01$, $p<.001$). Withdrawn children received fewer positive nominations ($x=.12$) and lower sociometric ratings ($x=2.96$) than well-adjusted children (positive nomination $x=.34$, sociometric rating $x=4.00$). No significant main effect for sex or sex by status interaction was discovered either for positive nominations or sociometric rating.

In contrast, no significant main effects for sex or status and no significant sex by status interaction were found for parent ratings of Anxiety-Withdrawal on the RBPC. Thus parent ratings did not differentiate between withdrawn and well-adjusted children ($F(1,56)=1.28$, $p<.27$).

Results of the ANOVAs for the significant other-report measures are displayed in Table 10. Cell means and standard deviations are displayed in Table 11.

Behavioral Observations.

Two (sex) by two (status) ANOVAs were computed using the following behavioral observation variables: quantity of peer interaction (total amount of positive

and negative peer-oriented behavior); quality of peer interaction (total amount of positive peer-oriented behavior); and initiations (total number of peer-oriented initiations). For both quality and quantity of peer interaction, a significant main effect for status was discovered (quality - $F(1,56)=7.20$, $p<.01$; quantity - $F(1,56)=8.24$, $p<.01$). Withdrawn children evidenced less peer-oriented interaction (quantity $x=35.28$) and less appropriate peer-oriented interaction (quality $x=35.1$) than well-adjusted children (quantity $x=45.11$, quality $x=44.4$). No significant main effect for sex or sex by status interaction was found for quantity or quality of peer interactions. In addition, there were no significant main effects for sex or status and no significant sex by status interaction for peer-oriented initiations. Thus, withdrawn and well-adjusted children did not differ in terms of number of peer-oriented initiations during the observation periods.

Results of the ANOVAs for behavioral observation variables are displayed in Table 12. Cell means and standard deviations are displayed in Table 13.

Role-play Test.

A two (sex) by two (status) MANOVA using component variables from the BATC-R (eye contact, response latency, response length, content) yielded no

significant main effect for sex (Wilks' $L=.95$, $F(3,54)=.89$, $p<.45$) or status (Wilks' $L=.97$, $F(3,54)=.61$, $p<.61$), and no significant sex by status interaction (Wilks' $L=.98$, $F(3,54)=.41$, $p<.75$).

Structured Interview.

A two (sex) by two (status) ANOVA was conducted using the total "internalizing pathology" score from the shortened CAS. Results indicated no significant main effects for sex ($F(1,56)=.15$, $p<.70$) or status ($F(1,56)=.00$, $p<.99$), and no significant sex by status interaction ($F(1,56)=.08$, $p<.78$). These results are displayed in Table 14 along with cell means and standard deviations.

Cognitive Self-Statement Test.

A two (sex) by two (status) MANOVA using the 4 scales of the self-statement test yielded a significant sex by status interaction (Wilks' $L=.83$, $F(4,53)=2.74$, $p<.04$) with no significant main effects for sex (Wilks' $L=.94$, $F(4,53)=.82$, $p<.52$) or status (Wilks' $L=.94$, $F(4,53)=.87$, $p<.49$).

A series of univariate ANOVAs were completed separately for each of the four scales. There were no significant main effects for sex or status for any of the four scales. A significant sex by status interaction was discovered for two of the four scales: off task thoughts ($F(1,56)=5.30$, $p<.03$) and positive

evaluation ($F(1,56)=4.41, p<.04$). Post hoc Duncans Multiple Range tests revealed that withdrawn males ($x=24.0$) endorsed significantly more off task thoughts than did withdrawn females ($x=16.78$) or well-adjusted males ($x=17.15$), who did not differ from one another. Well-adjusted females ($x=19.41$) did not differ significantly from any other group. While the ANOVA revealed a significant sex by status interaction for positive evaluation, results of the Duncans test failed to reveal any significant differences between withdrawn males ($x=24.1$), withdrawn females ($x=28.6$), well-adjusted males ($x=30.6$), or well-adjusted females ($x=25.9$).

Results of the ANOVAs for the self-statement test are displayed in Table 15. Cell means and standard deviations are displayed in Table 16.

Discriminant Function Analyses

Two separate discriminant function analyses were conducted in order to evaluate the use of certain measures to classify children as well-adjusted or withdrawn. First, total scores for the CDI, FSSCR, and RCMAS were evaluated. The results of this analysis are displayed in Table 17. Using scores from the self-report measures, 77 percent of well-adjusted children and only 50 percent of withdrawn children were classified correctly.

A second discriminate function analysis was conducted in order to evaluate the use of significant-other ratings and behavioral observations to classify children as well-adjusted or withdrawn. Specifically, the following variables were evaluated: quantity of peer interaction, quality of peer interaction, teacher moodiness rating, peer sociometric rating, and peer sociometric nomination. These results are displayed in Table 18. Using significant-other ratings and behavioral observation measures, 96 percent of well-adjusted children and 92 percent of withdrawn children were classified correctly.

DISCUSSION

General Discussion.

In general, results of the present investigation supported the experimental hypotheses. Teacher-nominated withdrawn and well-adjusted children were found to differ significantly on a number of dimensions including self-report measures, significant other-report ratings, behavioral observations, and cognitive self-statements. Indeed, results suggested that teachers are able to identify social withdrawal in elementary school-age children.

Withdrawn and well-adjusted children self-reported different amounts of fear, anxiety, and depression. In particular, withdrawn children reported more fear, anxiety, and depression on questionnaires than did well-adjusted children. This is in keeping with much of the multivariate literature which purports relationships among social withdrawal, fear, anxiety, and depression.

As was predicted, teachers rated the withdrawn children that they had nominated as significantly more moody than the well-adjusted children that they nominated. Thus when asked to provide ratings of relatively discrete behaviors, teachers were able to discriminate between withdrawn and well-adjusted children.

Peers, too, were able to differentiate between withdrawn and well-adjusted children. Withdrawn children received significantly lower peer sociometric ratings and fewer positive peer nominations than did well-adjusted children. Thus withdrawn children were less well-liked than their well-adjusted counterparts. However, as sociometrically isolated children were not identified during the present study (because negative nomination sociometrics could not be administered), the relationship between behavioral isolation and sociometric isolation remains unclear.

Behavioral observations of the social interactions of withdrawn and well-adjusted children revealed that withdrawn children engaged in less peer-oriented social behavior than well-adjusted children. Withdrawn children were more likely to spend free-play time alone or with adults than were well-adjusted children. This finding supports a host of previous research which has found socially withdrawn or isolated children to engage in lower rates of peer interaction (e.g., Walker and Hops, 1973).

Finally, results of the cognitive self-statement test yielded differences between withdrawn and well-adjusted male and female children. When presented with descriptions of social situations involving unfamiliar peers, withdrawn males endorsed more off

task thoughts than did well-adjusted children. While not statistically significant, withdrawn males also endorsed fewer positive evaluations, more negative evaluations, and fewer on task thoughts than did withdrawn females, well-adjusted females, or well-adjusted males. While previous research has shown that the cognitions of withdrawn or anxious children differ from those of non-withdrawn or non-anxious children, sex by status interactions have not been reported (Stefanek et al., in press; Zatz & Chassin, 1983). Such results underscore the importance of comprehensively assessing children's cognitive behavior.

Discriminant function analyses provided important information about the use of certain assessment measures to classify children as well-adjusted or withdrawn. Self-report measures of anxiety, depression, and fear allowed for the correct classification of three-quarters of well-adjusted children, but only one-half of withdrawn children. In contrast, significant-other ratings and behavioral observation measures were quite successful in classifying children. Using these measures, over 90 percent of well-adjusted children and withdrawn children were classified correctly. These results lend additional support to the notion that well-

adjusted children and withdrawn children represent two distinct groups.

While results of the present study generally were supportive of the experimental hypotheses, there were certain unexpected findings. Specifically, predictions regarding parent ratings, self-report interview score, and social skills deficits did not surface. Parent ratings of anxiety-withdrawal did not discriminate significantly between withdrawn and well-adjusted children, although ratings were in the predicted direction (i.e., withdrawn children were rated higher than well-adjusted children). The failure to find significant differences in parent ratings was surprising given the literature attesting to the ability of parents to identify internalizing symptoms (e.g., Achenbach & Edelbrock, 1978; Quay, 1979). A number of possible explanations may account for the discrepant findings. Given that the withdrawn children in this study were identified in school on the basis of teacher's perceptions of social withdrawal, it is possible that parents were unaware of such behavior, withdrawal was not present in the home environment, or parents did not view their child's withdrawn behavior as problematic. In fact, some suggest that parent and teacher ratings of children's behavior problems do not correspond well

since observations are made in different environments (e.g., Morris & Kratochwill, 1983). In addition, since the response rate for parent rating completion was only 55%, the sample size may have been too small to allow for meaningful comparisons between withdrawn and well-adjusted children.

No differences were obtained between withdrawn and well-adjusted children on their responses to the structured interview. This is in contrast to differences obtained between the two groups on self-report questionnaires of anxiety, fear, and depression. In addition, moderate significant correlations between the interview score and scores on the self-report measures were found. As noted earlier, the structured interview was a shortened version of the CAS (Hodges, 1978). Hodges et al. (1982) reported that the "fears" and "worries" content areas of the CAS did not discriminate between children who reported high and low levels of depression and anxiety on the CDI and STAIC, respectively. Given that "fears" and "worries" made up the bulk of the shortened interview used in the present study, the results are not surprising. Problems with reliability and inability to discriminate among known groups have been viewed as problems for a number of structured

psychiatric interviews like the CAS, particularly for anxiety symptom ratings (Ollendick & Francis, 1986).

Another reason for discrepancies between self-report as assessed by questionnaires and self-report as assessed by the structured interview may be inherent in the different methodologies. That is, paper and pencil questionnaires provide more structure than the interview in that possible responses were available and the child simply chose among them. In contrast, the interview required a verbal response to questions. In addition the questionnaire format allowed the child relative anonymity which obviously was not present with the interview.

Finally, the social skills of withdrawn and well-adjusted children were not different as assessed by a behavioral role-play test. Withdrawn and well-adjusted children were indistinguishable in terms of response length, response latency, eye contact, and verbal content. While previous research has supported the existence of skill deficits in withdrawn children (e.g., Whitehill et al., 1980), few researchers have examined the role-play performance of large groups of withdrawn children. Typically, such research has used single case designs or very small groups of three or four children. In addition, much of this research has focused on the relationship between skills deficits

and unpopularity, rather than behavioral withdrawal per se. It is clear that not all unpopular children are socially withdrawn.

Recently, the the use of analogue tests to assess social skills in children has been critically examined (e.g., Ollendick, Hart, & Francis, 1985; VanHasselt, Hersen, & Bellack, 1981). In general, only a modest relationship between role-play performance and naturalistic observation of social behavior has been uncovered. In addition, the relationship between role-play performance and teacher ratings of social behavior has been negligible. Thus, at this time it is unclear whether the results of the present study reflect a lack of social skill deficits in withdrawn children or methodological problems with the use of role-play tests.

Future Directions.

The exploration of children's social behavior is a complex task. While results of the present study have answered some important questions, still other questions remain unanswered. One such remaining question regards the relationship between behavioral withdrawal and sociometric isolation. That is, are those children who engage in low rates of peer social interaction the same children who are identified by peers (on the basis of positive and negative

sociometric nominations) as isolated or neglected? In order to answer this question, it would be necessary to use the assessment techniques of behavioral observations and positive/negative peer nomination sociometrics in the same study.

A second question is the relationship between peer social functioning and childhood psychopathology. The present study did not address the issue of whether results were specific to social withdrawal or reflective of childhood psychopathology in a general sense. In order to address this issue a replication of the present study would be helpful using a comparison group of children with "externalizing" symptoms such as conduct problems or attentional problems.

Normative and developmental questions comprise a third area for future research. For behavioral observation data and cognitive measures, in particular, there exists a paucity of normative information. As such, it makes the interpretation of results from such measures difficult.

There are few available developmental studies of childhood social withdrawal beyond the early childhood years. A notable exception is the work of Moskowitz et al. (1985). These authors provided one of the few prospective longitudinal investigations of childhood

social behavior. Such efforts should be applauded and replicated. For example, following up teacher-identified, behaviorally-identified, and peer-identified socially withdrawn children would provide a wealth of information regarding the natural course and stability of childhood social withdrawal.

Finally, questions remain as to how to apply assessment information to the treatment of social withdrawal. Obviously, there is a need for comprehensive assessment information in order to make appropriate treatment decisions. For instance, a socially withdrawn child in need of treatment may require an assessment aimed at answering questions regarding whether treatment should be targeted at eliminating a fear or teaching a skill. That is, is the child fearful and socially skilled or fearful, but socially unskilled? As Johnson (1979) suggested "the fearful child with skill deficits may benefit from a different kind of intervention program than the skilled youngster whose primary problem is avoidance" (p.392). Indeed, the first child might benefit most from a combination of anxiety reduction techniques and social skills training, while the second child might be better treated using operant techniques focused on increasing approach towards peers. The importance of a comprehensive assessment cannot be overlooked.

Conclusion.

The present investigation provided a comprehensive assessment of social withdrawal in elementary school-age children. Results indicated that teacher-identified socially withdrawn children differed from well-adjusted children on a number of variables: self-reported anxiety, fear, and depression; teacher ratings of moodiness; peer popularity measures; behavioral observations of peer interaction; and cognitive self-statements. Such results point out the need for a thorough and comprehensive assessment of children's social behavior.

REFERENCES

- Achenbach, T.M. (1966) The classification of children's psychiatric symptoms: A factor analytic study. Psychological Monographs, 80, 1 - 37.
- Achenbach, T.M. (1978) The Child Behavior Profile: I. Boys 6 - 11. Journal of Consulting and Clinical Psychology, 46, 478 - 488.
- Achenbach, T.M., & Edelbrock, C.S. (1978) The classification of child psychopathology: A review and analyses of empirical efforts. Psychological Bulletin, 85, 1275 - 1301.
- Asarnaw, J.R., & Callan, J.W. (1985) Boys with peer adjustment problems: Social cognitive processes. Journal of Consulting and Clinical Psychology, 53, 80 - 87.
- Asher, S.R., & Hymel, S. (1981) Children's social competence in peer relations: Sociometric and behavioral assessment. In J.D.Wine & M.D.Smye (Eds.), Social competence. New York: Guilford Press.
- Asher, S.R., & Renshaw, P.D. (1981) Children without friends: Social knowledge and social skills training. In S.R.Asher & J.M.Gottman (Eds.),

- The development of children's friendships. New York: Cambridge University Press.
- American Psychiatric Association. (1980) The diagnostic and statistical manual of mental disorders (3rd edition).
- Beck, A., Wark, C., Mendelson, M., Mock, J., & Erbaugh, J. (1961) An inventory for measuring depression. Archives of General Psychiatry, 4, 561 - 571.
- Beck, S., Forehand, R., Wells, K.C., & Quante, A. (1978) Social skills training with children: An examination of generalization from analogue to natural settings. Unpublished manuscript, University of Georgia.
- Bennett, B. (1983) Construct validity of sociometric status as a measure of social competence: A developmental approach. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University.
- Berler, E.S., Allen, K.D., & Burge, D.A. (1982) Thirty years of sociometric methodology: Implications of procedural variability for assessment and treatment research in children's social skills. Unpublished manuscript.
- Bornstein, M.R., Bellack, A.S., & Hersen, M. (1977) Social skills training for unassertive children.

Journal of Applied Behavior Analysis, 10, 183 - 195.

- Bornstein, M.R., Bellack, A.S., & Hersen, M. (1980) Social skills training for highly aggressive children in an inpatient setting. Behavior Modification, 4, 173 - 186.
- Bronson, W.C. (1966) Central orientations: A study of behavior organization from childhood to adolescence. Child Development, 37, 125 - 155.
- Brophy, J.E., & Good, T.L. (1974) Teacher's communications of differential expectations for children's classroom performance: Some behavioral data. Journal of Educational Psychology, 61, 365 - 374.
- Buss, D.M., Block, J.H., & Block, J. (1980) Preschool activity level: Personality correlates and developmental implications. Child Development, 51, 401 - 408.
- Clarizio, H.F. (1969) Mental health and the educational process. Chicago: Rand McNally.
- Coie, J.D., Dodge, K.A., & Cappelletti, H. (1982) Dimensions and types of social status: A cross-age perspective. Developmental Psychology, 18, 557 - 570.
- Connolly, J.A. (1983) A review of sociometric procedures in the assessment of social competency

- in children. Applied Research in Mental Retardation, 4, 315 - 327.
- Connolly, J.A., & Doyle, A.B. (1981) Assessment of social competence in preschoolers: Teachers versus peers. Developmental Psychology, 17, 451 - 456.
- Cooke, T.P., & Apolloni, T. (1976) Developing positive social-emotional behaviors: A study of training and generalization effects. Journal of Applied Behavior Analysis, 9, 65 - 78.
- Cowen, E.L., Dorr, D., Clarfield, S., Kreling, B., McWilliams, S., Pokracki, F., Pratt, D.M., Terrell, D., & Wilson, A. (1973) The AML: A quick screening device for early identification of school maladaptation. American Journal of Community Psychology, 1, 12 - 35.
- Cowen, E.L., Pederson, A., Babigan, M., Izzo, L.D., & Trost, M.A. (1970) Long-term follow-up of early detected vulnerable children. Journal of Consulting and Clinical Psychology, 41, 438 - 446.
- Curran, J.P. (1978) Comments of Bellack, Hersen, and Turner's paper on the validity of role play tests. Behavior Therapy, 9, 462 - 468.
- Dodge, K.A. (1983) Behavioral antecedents of peer

- social status. Child Development, 54, 1386 - 1399.
- Dodge, K.A., Coie, J.D., & Brakke, N.P. (1982) Behavior patterns of socially rejected and neglected preadolescents: The roles of social approach and aggression. Journal of Abnormal Child Psychology, 10, 389 - 409.
- Dorr, D., Stephens, J., Pozner, P., & Kladt, W. (1980) Use of the AML scale to identify adjustment problems in fourth, fifth, and sixth grade children. American Journal of Community Psychology, 8, 341 - 352.
- Evers, W., & Schwartz, J. (1973) Modifying social withdrawal in preschoolers: The effects of filmed modeling and teacher praise. Journal of Abnormal Child Psychology, 1, 248 - 256.
- Francis, G., & Last, C.G. (1986) The Avoidant Disorder of Childhood and Adolescence. Manuscript in preparation.
- Gersten, J.C., Langner, T.S., Eisenberg, J.C., Simcha-Fagen, O., & McCarthy, E.D. (1976) Stability and change in types of behavioral disturbance of children and adolescents. Journal of Abnormal Child Psychology, 4, 111 - 127.
- Gilbert, G.M. (1957) A survey of "referral problems"

- in metropolitan child guidance centers. Journal of Clinical Psychology, 13, 37 - 42.
- Gottman, J.M. (1977) Toward a definition of social isolation in children. Child Development, 48, 513 - 517.
- Gottman, J.M., Gonso, J., & Rasmussen, B. (1975) Social interaction, social competence, and friendship in children. Child Development, 46, 709 - 718.
- Greenwood, C.R., Walker, H.H., & Hops, H. (1977) Issues in social interaction/withdrawal assessment. Exceptional Children, 43, 490 - 499.
- Greenwood, C.R., Walker, H.M., Todd, N.M., & Hops, H. (1979) Selecting a cost-effective screening measure for the assessment of preschool social withdrawal. Journal of Applied Behavior Analysis, 12, 639 - 652.
- Gronlund, N.E. (1959) Sociometry in the classroom. New York: Harper & Brothers.
- Harris, P.R. (1984) The hidden face of shyness: A message from the shy for researchers and practitioners. Human Relations, 37, 1079 - 1093.
- Hartup, W.W. (1970) Peer interaction and social organization. In P.H. Mussen (Ed.), Manual of child psychology (Vol.2). New York: Wiley.

- Hartup, W.W., Glazer, J.A., and Charlesworth, R.
(1967) Peer reinforcement and sociometric status.
Child Development, 38, 1017 - 1024.
- Hayvren, M., & Hymel, S. (in press) Ethical issues in
sociometric testing: The impact of sociometric
measures on interactive behavior. Developmental
Psychology.
- Hodges, K. (1978) The Child Assessment Schedule
(CAS). Unpublished manuscript.
- Hodges, K., Kline, J., Stern, L., Cytryn, L., &
McKnew, P. (1982) The development of a child
assessment interview for research and clinical
use. Journal of Abnormal Child Psychology, 10,
173 - 189.
- Hops, H., & Greenwood, C.R. (1981) Social skills
deficits. In E.J. Mash & L.G. Terdal (Eds.),
Behavioral assessment of childhood disorders.
New York: Guilford Press.
- Hops, H., & Lewin, L. (1984) Peer sociometric forms.
In T.H. Ollendick & M. Hersen (Eds.), Child
behavioral assessment. New York: Pergamon.
- Ishiyama, F.I. (1984) Shyness: Anxious social
sensitivity and self-isolating tendency.
Adolescence, 19, 903 - 911.
- Johnson, S.B. (1979) Children's fears in the

- classroom setting. School Psychology Digest, 8, 382 - 396.
- Kanner, L. (1943) Autistic disturbances of affective contact. Nervous Child, 2, 217 - 250.
- Kashani, J.H., Barbero, G.L., & Bolander, F.D. (1981) Depression in hospitalized pediatric patients. Journal of the American Academy of Child Psychiatry, 20, 123 - 134.
- Kohn, M. (1977) Social competence, symptoms, and underachievement in childhood: A longitudinal perspective. New York: Winston.
- Kovacs, M. (1983) The Children's Depression Inventory: A self-rating depression scale for school-aged youngsters. Unpublished manuscript.
- Kovacs, M., & Beck, A.T. (1977) An empirical-clinical approach toward a definition of childhood depression. In J.G. Schulterbrandt & A. Raskin (Eds.), Depression in childhood: Diagnoses, treatment, and conceptual models. New York: Raven Press.
- Lazarus, P.J. (1982) Incidence of shyness in elementary-school age children. Psychological Reports, 51, 904 - 906.
- Macfarlane, J.N., Allen, L., & Honzik, M.P. (1954) A developmental study of the behavior problems of

- normal children between 21 months and 14 years.
Berkeley: University of California Press.
- Morris, R.J., & Kratochwill, T.R. (1983) Treating children's fears and phobias: A behavioral approach. New York: Pergamon Press.
- Moskowitz, D.S., Schwartzman, A. E., & Ledingham, J.E. (1985) Stability and change in aggression and withdrawal in middle childhood and early adolescence. Journal of Abnormal Child Psychology, 94, 30 - 41.
- Nelson, C.M. (1971) Techniques for screening conduct disturbed children. Exceptional Children, 37, 501 - 507.
- O'Connor, R.D. (1969) Modification of social withdrawal thorough symbolic modeling. Journal of Applied Behavior Analysis, 2, 15 - 22.
- Oden, S., & Asher, S. (1977) Coaching children in social skills for friendship-making. Child Development, 48, 495 - 506.
- Ollendick, T.H. (1981) Assessment of social interaction skills in school children. Behavioral Counseling Quarterly, 1, 227 - 243.
- Ollendick, T.H. (1983) Reliability and validity of the Revised Fear Survey Schedule for Children (FSSC-R). Behavior Research and Therapy, 21, 685 - 692.

- Ollendick, T.H., & Cerny, J.A. (1981) Clinical behavior therapy with children. New York: Plenum Press.
- Ollendick, T.H., & Francis, G. (in press) Behavioral assessment and treatment of children's phobias. Behavior Modification.
- Ollendick, T.H., Hart, K.J., & Francis, G. (1985) Social validation of the Revised Behavioral Assertiveness Test for Children (BAT-CR). Child and Family Behavior Therapy, 7, 17 - 34.
- Ollendick, T.H., Matson, J.L., & Helsel, W.J. (1985) Fears in children and adolescents: Normative data. Behavior Research and Therapy, 4, 465 - 467.
- Olweus, D. (1977) Aggression and peer acceptance in adolescent boys: Two short term longitudinal studies of ratings. Child Development, 48, 1301 - 1313.
- Peery, E.C. (1979) Popular, amiable, isolated, rejected: A reconceptualization of sociometric status in preschool children. Child Development, 50, 1231 - 1234.
- Pekarik, E.G., Prinz, R.J., Liebert, D.E., Weintraub, S., & Neale, J.M. (1976) The Pupil Evaluation Inventory: A sociometric technique for assessing

- children's social behavior. Journal of Abnormal Child Psychology, 4, 83 - 97.
- Poznanski, E.O., & Zrull, J.P. (1970) Childhood depression: Clinical characteristics of overtly depressed children. Archives of General Psychiatry, 23, 8 - 15.
- Petti, T. (1983) Depression and withdrawal in children. In T.H. Ollendick & M. Hersen (Eds.), Handbook of child psychopathology. New York: Plenum Press.
- Puig-Antich, J., Blau, S., Marx, N., Greenhill, L., & Chambers, W. (1978) Prepubertal major depressive disorder: A pilot study. Journal of the American Academy of Child Psychiatry, 17, 695 - 707.
- Putallaz, M., & Gottman, J.M. (1981) An interactional model of children's entry into peer groups. Child Development, 52, 986 - 994.
- Quay, H.C. (1979) Classification. In H.C. Quay & J.S. Werry (Eds.), Psychopathological disorders of childhood (2nd Edition). New York: Wiley.
- Reynolds, C.R., & Paget, K.D. (1983) National normative and reliability data for the Revised Children's Manifest Anxiety Scale. Journal of Abnormal Child Psychology, 12, 324 - 336.

- Reynolds, C.R., & Richmond, B.O. (1978) "What I think and feel": A revised measure of children's manifest anxiety. Journal of Abnormal Child Psychology, 6, 271-280.
- Roff, M., Sells, S.B., & Golden, M.M. (1972) Social adjustment and personality development in children. Minneapolis: University of Minnesota Press.
- Rolf, J., Hakola, J., Klemchuk, H., & Hasazi, J. (1976) The incidence, prevalence, and severity of behavior disorders among preschool age children. Paper presented at the Eastern Psychological Association. New York: April.
- Rubin, K.H., Daniels-Beirness, T., & Brem, T. (1984) Social isolation and social problem-solving: A longitudinal study. Journal of Consulting and Clinical Psychology, 52, 17 - 25.
- Scherer, M.W., & Nakamura, C.Y. (1968) A Fear Survey Schedule for Children (FSS-FC): A factor analytic comparison with manifest anxiety (CMAS). Behavior Research and Therapy, 6, 173 - 182.
- Shepherd, M., Oppenheim, B., & Mitchell, S. (1971) Childhood behavior and mental health. New York: Grune & Stratton.
- Shure, M.B., & Spivack, G. (1980) Interpersonal problems solving as a mediator of behavior

- adjustment in preschool and kindergarden children. Journal of Applied Development Psychology, 1, 29 - 44.
- Stefanek, M.E., Ollendick, T.H., Baldock, W.P., Francis, G., & Yaeger, N.J. (in press) Self-statements in aggressive, withdrawn, and popular children. Cognitive Therapy and Research.
- Smucker, M.R., Craighead, W.E., Craighead, L., & Green, B.J. (1986) Normative and reliability data for the Children's Depression Inventory. Journal of Abnormal Child Psychology, 14, 25 - 39.
- Strain, P., Cooke, T., & Apolloni, T. (1976) Teaching exceptional children: Assessing and modifying social behavior. New York: Academic Press.
- Ullman, C.A. (1957) Teachers, peers, and tests as predictors of adjustment. Journal of Educational Psychology, 48, 257 - 267.
- VanHasselt, V.B., Hersen, M., & Bellack, A.S. (1981) The validity of role-play tests for assessing social skills in children. Behavior Therapy, 12, 202 - 216.
- Vosk, B., Forehand, R., Parker, I., & Rickard, K. (1982) A multimethod comparison of popular and unpopular children. Developmental Psychology, 18, 571 - 575.

- Waldrop, M.F., & Halverson, C.F. (1975) Intensive and extensive peer behaviors: Longitudinal and cross sectional analyses. Child Development, 46, 19 - 26.
- Walker, H.M. (1970) The Walker Problem Behavior Identification Checklist. Los Angeles: Western Psychological Services, Inc.
- Walker, H.M., & Buckley, N.K. (1973) Teacher attention to appropriate and inappropriate classroom behavior: An individual case study. Focus on Exceptional Children, 5, 5 - 11.
- Walker, H.M., & Hops, H. (1973) The use of group and individual reinforcement contingencies in the modification of social withdrawal. In L.A. Hamerlynck, L.C. Handy, & E.J. Mash (Eds.), Behavior change: Methodology, concepts and practice. Champaign, Illinois: Research Press.
- Wandless, R.L., & Prinz, R.J. (1982) Methodological issues in conceptualizing and treating childhood social isolation. Psychological Bulletin, 92, 39 - 55.
- Watt, N.F. (1978) Patterns of childhood social development in adult schizophrenics. Archives of General Psychiatry, 35, 160 - 165.
- Werry, J.S., & Quay, H.C. (1971) The prevalence of behavior symptoms of younger elementary school

- children. American Journal of Orthopsychiatry, 41, 136 - 143.
- Whitehill, M.B., Hersen, M., & Bellack, A.S. (1980) Conversation skills training for socially isolated children. Behavior Research and Therapy, 18, 217 - 225.
- Whitman, T.L., Mercurio, J.R., & Caponigri, V. (1970) Development of social responses in two severely retarded children. Journal of Applied Behavior Analysis, 3, 133 - 138.
- Wiggins, J.S., & Winder, C.L. (1961) The Peer Nomination Inventory: An empirically derived sociometric measure of adjustment in preadolescent boys. Psychological Reports, __, 643 - 677.
- Winett, R.A., & Winkler, R.C. (1972) Current behavior modification in the classroom: Be still, be quiet, be docile. Journal of Applied Behavior Analysis, 5, 499 - 504.
- Zatz, S., & Chassin, L. (1983) Cognitions of test-anxious children. Journal of Consulting and Clinical Psychology, 4, 526 - 534.
- Zimbardo, P.G., Pilkonis, P., & Norwood, R. (1974) The silent prison of shyness. Unpublished manuscript, Stanford University.

APPENDIX A

CHILD PERMISSION FORM

We are interested in finding out how kids think and feel about being with other kids.

I, _____, agree to participate by answering some questions and by pretending to be in situations with other kids.

APPENDIX B

WHAT I THINK AND FEEL

School _____

Name _____

Grade _____ Age _____

Girl _____ Boy _____

Directions: Read each question carefully. Put a circle around the word YES if you think it is true about you. Put a circle around the word NO if you think it is not true about you.

- YES NO 1. I have trouble making up my mind.
- YES NO 2. I get nervous when things do not go the right way for me.
- YES NO 3. Others seem to do things easier than I can.
- YES NO 4. I like everyone I know.
- YES NO 5. Often I have trouble getting my breath.
- YES NO 6. I worry a lot of the time.
- YES NO 7. I am afraid of a lot of things.
- YES NO 8. I am always kind.
- YES NO 9. I get mad easily.
- YES NO 10. I worry about what my parents will say to me.
- YES NO 11. I feel that others do not like the way I do things.
- YES NO 12. I always have good manners.
- YES NO 13. It is hard for me to get to sleep at night.
- YES NO 14. I worry about what other people think about me.
- YES NO 15. I feel alone even when there are people with me.
- YES NO 16. I am always good.
- YES NO 17. Often I feel sick in my stomach.

- YES NO 18. My feelings get hurt easily.
- YES NO 19. My hands feel sweaty.
- YES NO 20. I am always nice to everyone.
- YES NO 21. I am tired a lot.
- YES NO 22. I worry about what is going to happen.
- YES NO 23. Other children are happier than I.
- YES NO 24. I tell the truth every single time.
- YES NO 25. I have bad dreams.
- YES NO 26. My feelings get hurt easily when I am fussed at.
- YES NO 27. I feel someone will tell me I do things the wrong way.
- YES NO 28. I never get angry.
- YES NO 29. I wake up scared some of the time.
- YES NO 30. I worry when I go to bed at night.
- YES NO 31. It is hard for me to keep my mind on my school work.
- YES NO 32. I never say things I shouldn't.
- YES NO 33. I wiggle in my seat a lot.
- YES NO 34. I am nervous.
- YES NO 35. A lot of people are against me.
- YES NO 36. I never lie.
- YES NO 37. I often worry about something bad happening to me.

SELF-RATING QUESTIONNAIRE (FSSC-R)

Thomas H. Ollendick

NAME: _____ AGE: _____ DATE: _____

DIRECTIONS: A number of statements which boys and girls use to describe the fears they have are given below. Read each fear carefully and put an X in the box in front of the words that describe your fear. There are no right or wrong answers. Remember, find the words which best describe how much fear you have.

- | | | | |
|--|-------------------------------|-------------------------------|--------------------------------|
| 1. Giving an oral report. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 2. Riding in the car or bus | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 3. Getting punished by mother | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 4. Lizards. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 5. Looking foolish. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 6. Ghosts or spooky things. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 7. Sharp objects. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 8. Having to go to the hospital | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 9. Death or dead people | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 10. Getting lost in a strange place. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 11. Snakes | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 12. Talking on the telephone | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 13. Roller coaster or carnival rides | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 14. Getting sick at school | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 15. Being sent to the principal. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 16. Riding on the train. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 17. Being left at home with a sitter | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 18. Bears or wolves. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 19. Meeting someone for the first time | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 20. Bombing attacks--being invaded | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 21. Getting a shot from the nurse or doctor. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |

- | | | | |
|--|-------------------------------|-------------------------------|--------------------------------|
| 22. Going to the dentist | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 23. High places like on mountains | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 24. Being teased | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 25. Spiders | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 26. A burglar breaking into our house. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 27. Flying in a plane. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 28. Being called on by the teacher | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 29. Getting poor grades. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 30. Bats or birds. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 31. My parents criticizing me. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 32. Guns | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 33. Being in a fight | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 34. Fire--getting burned | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 35. Getting a cut or injury. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 36. Being in a big crowd | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 37. Thunderstorms. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 38. Having to eat some food I don't like | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 39. Cats | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 40. Failing a test | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 41. Being hit by a car or truck. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 42. Having to go to school | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 43. Playing rough games during recess. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 44. Having my parents argue. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 45. Dark rooms or closets. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 46. Having to put on a recital | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 47. Ants or beetles. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 48. Being criticized by others | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 49. Strange looking people | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 50. The sight of blood | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |

- | | | | |
|--|-------------------------------|-------------------------------|--------------------------------|
| 51. Going to the doctor | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 52. Strange or mean looking dogs | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 53. Cemeteries. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 54. Getting a report card | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 55. Getting a haircut | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 56. Deep water or the ocean | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 57. Nightmares. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 58. Falling from high places | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 59. Getting a shock from electricity | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 60. Going to bed in the dark | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 61. Getting car sick. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 62. Being alone | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 63. Having to wear clothes different from others | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 64. Getting punished by my father | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 65. Having to stay after school | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 66. Making mistakes | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 67. Mystery movie | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 68. Loud sirens | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 69. Doing something new | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 70. Germs or getting a serious illness. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 71. Closed places | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 72. Earthquakes | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 73. Russia. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 74. Elevators | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 75. Dark places | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 76. Not being able to breathe | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 77. Getting a bee sting | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 78. Worms or snails | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 79. Rats or mice. | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |
| 80. Taking a test | <input type="checkbox"/> None | <input type="checkbox"/> Some | <input type="checkbox"/> A lot |

CD INVENTORY

M. Kovacs

Name _____ Age _____ Date _____

DIRECTIONS: Kids sometimes have different feelings and ideas. This form lists the feelings and ideas in groups. From each group, pick one sentence that describe you best for the past two weeks. After you pick a sentence from the first group, go on to the next group. There is no right or wrong answer. Just pick the sentences that best describe the way you have been recently. Put a mark like this - X - next to your answer. Put the X on the line next to the sentence that you pick.

Here is an example of how this form works. Try it. Put a mark next to the sentence that describes you best:

_____ I read books all the time
 _____ I read books once in a while
 _____ I never read books

Remember, pick out the sentence that describes your feelings and ideas in the past two weeks.

1. _____ I am sad once in a while
 _____ I am sad many times
 _____ I am sad all the time
2. _____ Nothing will ever work out for me
 _____ I am not sure if things will work out for me
 _____ Things will work out for me O. K.
3. _____ I do most things O.K.
 _____ I do many things wrong
 _____ I do everything wrong
4. _____ I have fun in many things
 _____ I have fun in some things
 _____ Nothing is fun at all
5. _____ I am bad all the time
 _____ I am bad many times
 _____ I am bad once in a while
6. _____ I think about bad things happening to me once in a while
 _____ I worry that bad things will happen to me
 _____ I am sure that terrible things will happen to me
7. _____ I hate myself
 _____ I do not like myself
 _____ I like myself

8. All bad things are my fault
 Many bad things are my fault
 Bad things are not usually my fault
9. I do not think about killing myself
 I think about killing myself but I would not do it
 I want to kill myself
10. I feel like crying everyday
 I feel like crying many days
 I feel like crying once in a while
11. Things bother me all the time
 Things bother me many times
 Things bother me once in a while
12. I like being with people
 I do not like being with people many times
 I do not want to be with people at all
13. I cannot make up my mind about things
 It is hard to make up my mind about things
 I make up my mind about things easily
14. I look O.K.
 There are some bad things about my looks
 I look ugly
15. I have to push myself all the time to do my schoolwork
 I have to push myself many times to do my schoolwork
 Doing schoolwork is not a big problem
16. I have trouble sleeping every night
 I have trouble sleeping many nights
 I sleep pretty well
17. I am tired once in a while
 I am tired many days
 I am tired all the time
18. Most days I do not feel like eating
 Many days I do not feel like eating
 I eat pretty well
19. I do not worry about aches and pains
 I worry about aches and pains many times
 I worry about aches and pains all the time
20. I do not feel alone
 I feel alone many times
 I feel alone all the time

21. I never have fun at school
 I have fun at school only once in a while
 I have fun at school many times
22. I have plenty of friends
 I have some friends but I wish I had more
 I do not have any friends
23. My school work is all right
 My school work is not as good as before
 I do very badly in subjects I used to be good in fixed
24. I can never be as good as other kids
 I can be as good as other kids if I want to
 I am just as good as other kids
25. Nobody really loves me
 I am not sure if anybody loves me
 I am sure that somebody loves me
26. I usually do what I am told
 I do not do what I am told most times
 I never do what I am told
27. I get along with people
 I get into fights many times
 I get into fights all the time

THE END

Thank you for filling out this form.

Teacher _____ Date _____ Student _____

A M L
BEHAVIOR RATING SCALE

Observed Behavior	Scale				
	Never (1)	Seldom (2)	Moderately often (3)	Often (4)	Most or all of the time (5)
1. Gets into fights or quarrels with other students	()	()	()	()	()
2. Has to be coaxed or forced to work or play with other pupils	()	()	()	()	()
3. Is restless	()	()	()	()	()
4. Is unhappy or depressed	()	()	()	()	()
5. Disrupts class discipline	()	()	()	()	()
6. Becomes sick when faced with a difficult school problem or situation	()	()	()	()	()
7. Is obstinate	()	()	()	()	()
8. Feels hurt when criticized	()	()	()	()	()
9. Is impulsive	()	()	()	()	()
10. Is moody	()	()	()	()	()
11. Has difficulty learning	()	()	()	()	()

- | | | |
|---|-------------------------|---|
| 1 | Never | You have literally never observed this behavior in this child. |
| 2 | Seldom | You have observed this behavior once or twice in the last 3 months. |
| 3 | Moderately often | You have observed this behavior more often than once a month but less than once a week. |
| 4 | Often | You have seen this behavior more often than once a week but less often than daily. |
| 5 | Most or all of the time | You have seen this behavior with great frequency, averaging once a day or more often. |

REVISED BEHAVIOR PROBLEM CHECKLIST

Herbert C. Quay, Ph.D.
University of Miami

and

Donald R. Peterson, Ph.D.
Rutgers University

Please complete items 1 to 7 carefully.

1. Name (or identification number) of child

2. Date of birth _____

3. Sex _____

4. Father's occupation _____

5. Name of person completing this checklist

6. Relationship to child (circle one)

a. Mother b. Father c. Teacher d. Other _____
(Specify)

7. Date checklist completed _____

Please indicate which of the following are problems, as far as this child is concerned. If an item does not constitute a problem or if you have had no opportunity to observe or have no knowledge about the item, circle the zero. If an item constitutes a mild problem, circle the one; if an item constitutes a severe problem, circle the two. Please complete every item.

REVISED BEHAVIOR PROBLEM CHECKLIST

1. Restless; unable to sit still	0	1	2
2. Seeks attention; "shows-off"	0	1	2
3. Stays out late at night	0	1	2
4. Self-conscious; easily embarrassed	0	1	2
5. Disruptive; annoys and bothers others	0	1	2
6. Feels inferior	0	1	2
7. Steals in company with others	0	1	2
8. Preoccupied; "in a world of his own;" stares into space	0	1	2
9. Shy, bashful	0	1	2
10. Withdraws; prefers solitary activities	0	1	2
11. Belongs to a gang	0	1	2
12. Repetitive speech; says same thing over and over	0	1	2
13. Short attention span; poor concentration	0	1	2
14. Lacks self-confidence	0	1	2
15. Inattentive to what others say	0	1	2
16. Incoherent speech, what is said doesn't make sense	0	1	2
17. Fights	0	1	2
18. Loyal to delinquent friends	0	1	2
19. Has temper tantrums	0	1	2
20. Truant from school, usually in company with others	0	1	2
21. Hypersensitive; feelings are easily hurt	0	1	2
22. Generally fearful; anxious	0	1	2
23. Irresponsible, undependable	0	1	2
24. Has "bad" companions, ones who are always in some kind of trouble	0	1	2
25. Tense, unable to relax	0	1	2
26. Disobedient; difficult to control	0	1	2
27. Depressed; always sad	0	1	2
28. Uncooperative in group situations	0	1	2
29. Passive, suggestible; easily led by others	0	1	2
30. Hyperactive; "always on the go"	0	1	2
31. Distractible; easily diverted from the task at hand	0	1	2
32. Destructive in regard to own and/or other's property	0	1	2
33. Negative; tends to do the opposite of what is requested	0	1	2
34. Impertinent; talks back	0	1	2
35. Sluggish, slow moving, lethargic	0	1	2
36. Drowsy; not "wide awake"	0	1	2
37. Nervous, jittery, jumpy; easily startled	0	1	2
38. Irritable, hot-tempered; easily angered	0	1	2
39. Expresses strange, far-fetched ideas	0	1	2
40. Argues; quarrels	0	1	2
41. Sulks and pouts	0	1	2
42. Persists and nags; can't take "no" for an answer	0	1	2
43. Avoids looking others in the eye	0	1	2
44. Answers without stopping to think	0	1	2
45. Unable to work independently; needs constant help and attention	0	1	2
46. Uses drugs in company with others	0	1	2
47. Impulsive; starts before understanding what to do; doesn't stop and think	0	1	2
48. Chews on inedible things	0	1	2
49. Tries to dominate others; bullies, threatens	0	1	2
50. Picks at other children as a way of getting their attention; seems to want to relate but doesn't know how	0	1	2
51. Steals from people outside the home	0	1	2

(please go on to next page)

	<u>RAW</u>	<u>Z</u>	<u>I</u>	<u>R</u>	<u>C</u>
+A	___	___	___	___	___
+P	___	___	___	___	___
-A	___	___	___	___	___
-P	___	___	___	___	___
0	___	___	___	___	___

Observer _____
 Date _____
 Activity _____
 Subject _____

Total Intervals

	Code				Observation
1.	A/P/O	+/-	I/R/C	V/N	_____
2.	A/P/O	+/-	I/R/C	V/N	_____
3.	A/P/O	+/-	I/R/C	V/N	_____
4.	A/P/O	+/-	I/R/C	V/N	_____
5.	A/P/O	+/-	I/R/C	V/N	_____
6.	A/P/O	+/-	I/R/C	V/N	_____
7.	A/P/O	+/-	I/R/C	V/N	_____
8.	A/P/O	+/-	I/R/C	V/N	_____
9.	A/P/O	+/-	I/R/C	V/N	_____
10.	A/P/O	+/-	I/R/C	V/N	_____
11.	A/P/O	+/-	I/R/C	V/N	_____
12.	A/P/O	+/-	I/R/C	V/N	_____
13.	A/P/O	+/-	I/R/C	V/N	_____
14.	A/P/O	+/-	I/R/C	V/N	_____
15.	A/P/O	+/-	I/R/C	V/N	_____
16.	A/P/O	+/-	I/R/C	V/N	_____
17.	A/P/O	+/-	I/R/C	V/N	_____
18.	A/P/O	+/-	I/R/C	V/N	_____

Any additional comments _____

NAME _____

AGE _____ SEX _____ DOB _____

INTERVIEWER _____

INTERNALIZING PATHOLOGY SCORE = total # of matches

What do you like best about school?

Do you like _____ as much lately as you used to?

How do you get along with your teachers?

How are your grades? What were the grades on your last report card?

IF GRADES ARE POOR...How come your grades are poor?

yes _____ no

A B C D U
lack of effort _____
lack of ability or poor resources _____
teacher's fault _____
other _____

Do you usually make _____? Is your school work as good as before?

Do you do your homework?

Do you have to push yourself to do your homework?

IF YES...have you always had this problem?

How often are you absent from school?

IF FREQUENT...how come?

yes _____ no

yes _____ no _____

yes _____ no

frequently _____ seldom _____ never _____
lack of interest in attending school _____
want to stay home because of concern for parents _____
because of peers/teachers who pick on him/her _____
parents want child to stay home for chores _____
illness _____

How many friends do you have in school or in your neighborhood? What are their names?

How old are your best friends?

Do you wish you had more friends?

IF YES...what gets in the way of you having more friends?

What do you like to do with your friends?

yes _____ no _____

homeless
embarrassment

if no activities

Have you been doing those things with your friends
as much as you usually do?

yes no

How much time do you spend by yourself?

IF A LOT...do you prefer to be by yourself?
do you not want to be by yourself?
so much, but you are shy?
do you not like being by yourself
but feel hopeless about making
friends?

yes no
yes no
yes no

Most people are afraid of something. What are you
afraid of?

* What about... (ask about each)



strangers _____ when?
being in public places away from home (e.g., crowds,
buses) _____
school _____ which ones?
animals _____
heights _____
closed spaces _____
dark _____

yes no

yes no

yes no

yes no

often seldom never
the future being perfect or past imperfections
being perfectly concerned about competition

The Behavioral Assertiveness Test for Children - Revised

In a few minutes I'm going to ask you to pretend some things. I'm going to describe some situations and I'd like you to pretend that you are really there. I'm going to ask you to imagine that you are with people you know and you will be doing different kinds of things with them, like playing outside, or doing work in school. When I describe each scene to you, I want you to pretend that it is happening right now.

At times (male assistant's name) and at other times (female assistant's name) will help us by pretending that they are with you in these situations. We might pretend that he is a boy in your class or that she is your best friend at home. After I describe a situation, (male assistant's name) or (female assistant's name) will say something to you. Then, I want you to say what you really would say if you really were in that situation with that person. Do you know what I mean?

OK, let's try a situation. Remember to pretend that it is really happening now and say whatever you would say in that situation. In some of these you might feel angry or irritated at the other person. Now here's one:

(The practice negative assertion scene is presented and counter-responses delivered by the assistant. If the subject appears to understand and gave an appropriate response, the next part is presented.)

In other scenes, you might feel happy and friendly towards the other person. Listen to this one:

(The practice positive assertion scene is presented and counter-responses delivered by the assistant.)

Now remember to say what you would really say in these situations, whatever would be on your mind. Now, we'll do some more. Ready?

Behavioral Assertiveness Test for Children - Revised (BAT-CR)

I. Scenes for Negative Assertion: Male Model

1. N: Imagine that you are standing in line for lunch. A boy comes over and wants you to let him and his friends cut in line in front of you. You are real hungry and if you let them you might not have time to eat.

P: "Let us cut in front of you."

(Subjects's Response)

Assertive Sequence

Initial Counter Response:

Ia. But we don't want to have to wait on the end of this long line.

(Subject's Response)

Counter Response Options:

Ib. Look how long the line is. What difference will it make if we cut in here?

or

Ic. I'm sure you'll have plenty of time to eat lunch.

Unassertive Sequence

Initial Counter Response:

IIa. So it's okay if we cut in line here?

(Subject's Response)

IIb. I'm sure you'll have plenty of time to eat lunch.

or

IIc. Look how long the line is. What difference will it make if we cut in here?

2. N: A boy in your class always borrows money from you but he never pays you back. After school he comes up to you and says:

P: "Let me have a dollar, I'll pay you back tomorrow."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. I promise, I'll pay you back first thing tomorrow.

(Subject's Response)

Counter Response Options:

Ib. But I really need it and I'll pay you back first thing tomorrow.

or

Ic. I'll pay you back tomorrow then.

Unassertive Sequence

Initial Counter Response:

IIa. Then you don't mind if I borrow the money and pay you back tomorrow sometime?

(Subject's Response)

IIb. I'll pay you back tomorrow then.

or

IIc. But I really need it and I'll pay you back first thing tomorrow.

3 N: Your friend borrowed your bike and said that he would bring it right back. He comes back with it several hours later and you want to use it. He says:

P: "I want to keep your bike until tomorrow, OK?"

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. But I need it to run some errands and to do some other things.

(Subject's Response)

Counter Response Options:

Ib. How about if I bring it back in about two or three hours instead of tomorrow?

or

Ic. I'll bring it back first thing in the morning.

Unassertive Sequence

Initial Counter Response:

IIa. Then you don't mind if I borrow it until tomorrow?

(Subject's Response)

IIb. I'll bring it back first thing in the morning.

or

IIc. How about if I bring it back in about two or three hours instead of tomorrow?

1. Scenes for Negative Assertion: Female Model

4. N: Pretend that a girl in your class has borrowed your book but now you need it and you want it back. She comes over to you and says:

P: "I want to keep your book until next week."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. How about if I get the book back to you in 4 or 5 days?

(Subject's Response)

Counter Response Options:

Ib. But I really need the book and I'll get it back to you as soon as I can.

or

Ic. I'll try to get the book back to you as soon as I can.

Unassertive Sequence

Initial Counter Response:

IIa. You don't mind then if I keep it until next week?

(Subject's Response)

IIb. I'll try to get the book back to you as soon as I can.

or

IIc. But I really need the book and I'll get it back to you as soon as I can.

5. N: You are out playing with your friends and having a good time, but you know that your mother wants you to be home now and you don't want to make her angry. You want to tell your friends that you have to go home. They say:

P: "C'mon, let's play another game; don't leave now."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. Oh, she won't mind if you're a little bit late.

(Subject's Response)

Counter Response Options:

Ib. We can just play a quick game and then you can go home.

or

Ic. We'll make this game a quick one and you won't be very late.

Unassertive Sequence

Initial Counter Response:

IIa. Then you'll stay and play another game with us?

(Subject's Response)

IIb. We'll make this game a quick one and you won't be very late.

or

IIc. We can just play a quick game and then you can go home.

6. N: You are at the movies and it's a really good show but some girl in the seat behind you is making a lot of noise and is bothering you. You turn around and she says:

P: "Boy, this movie stinks."

(Subject's Response)

Assertive Sequence

Initial Counter Response:

Ia. What's the big deal, it's a crummy movie anyway!

(Subject's Response)

Ib. But it's no fun if you don't fool around in the movies.

or

Ic. It's fun yelling out and fooling around at the movies.

Unassertive Sequence

Initial Counter Response:

I Ia. So it's not bothering you too much if we fool around back here?

(Subject's Reponse)

I Ib. It's fun yelling out and fooling around in the movies.

or

I Ic. But it's no fun if you don't fool around in the movies.

.. Scenes for Positive Assertion: Male Model

7. N: You are on the playground and you fall down. A boy comes over and gives you his hand. He says:

P: "Here, let me help you."

(Subject's Response)

Counter Response Set

Ia. Are you sure you're okay?

(Subject's Response)

Ib. It really looked like you took a hard fall.

8. N: It's your birthday and your friend gives you a really neat gift. He knew that it was something that you wanted for a long time. He says:

P: "Here, I hope you like it."

(Subject's Response)

Counter Response Set

Ia. You mentioned that this was something you've wanted for a long time.

(Subject's Resonse)

Ib. I hope you have a lot of fun with it.

9. N: You are playing kickball with some of your classmates from school. One of the boys makes a terrific kick and scores a home run. He's on your team and he says:

P: "How did you like that one?"

(Subject's Response)

Counter Response Set

Ia. I've been practicing hard for a week now.

(Subject's Response)

Ib. I really want to play well for the team.

7. Scenes for Positive Assertion: Female Model

10. N: Imagine that you got a new sweater for your birthday.
You like it very much. Your friend says:

P: "Gee, I really like your sweater. It really looks
good on you."

(Subject's Response)

Counter Response Set

Ia. You said you always wished you had one like this.

(Subject's Response)

Ib. I hope you really like it.

11. N: A girl in your class drew a picture and she thinks it's
really good. You think so too. She says:

P: "How do you like my picture?"

(Subject's Response)

Counter Response Set

Ia. It took me a whole week to get it finished.

(Subject's Response)

Ib. I wonder if I should try to do another one?

12. N: You painted a picture in art class and the girl next to you says:

P: "Wow, that's really great!"

(Subject's Response)

Counter Response Set

Ia. It sure looks like you put a lot of work into it.

(Subject's Response)

Ib. You should really do more painting, you're very good at it.

Cognitive Task

SCENE PRESENTATION INSTRUCTIONS

"I'm interested in what children think about different things. I'm going to read you some situations and I want you to pretend that you are really in each situation. I want you to pretend that each situation is really happening."

SCENES

(1) Imagine a child whom you really don't know found out that you had a game that he/she likes and he/she borrowed it from you. The child has not returned it yet even though he/she said that he/she would. You really want to have your game back now so you can play with it. This child walks into the classroom before school starts and sees you. Remember, this is a child whom you really don't know. The child walks up and says "Hi, your game is really neat. I want to keep it for a few more days."

(2) Imagine that you are on the playground and a child whom you really don't know has a ball. He/she is walking around and playing with the ball. You really would like to play with that ball now too. Remember, this child is someone whom you really don't know.

(3) Imagine that a child whom you really don't know is sitting next to you in one of your classes. You can't hear the teacher very well because he/she is tapping his/her pencil very loudly. Remember, this is a child whom you really don't know.

(4) Imagine that part of your class is playing a game during math and that you have to work on some really hard math problems as part to the game. You'd really like to play, but you need some help with the math problems in order to play. A child whom you really don't know has almost finished and you'd like some help from him/her. Remember, this child is someone whom you really don't know.

SELF STATEMENT TEST INSTRUCTIONS

"Children often think different kinds of things when they are in situations like the one you just pretended to be in. Read each thought listed below and circle YES or NO to show whether you might think that thought if you were really in that situation. There are no right or wrong answers."

game ball pencil math

Name _____

CHILDREN'S COGNITIVE ASSESSMENT QUESTIONNAIRE (REVISED)

The other child probably thinks I'm dumb.	YES	NO	N
I wish I were playing with my friends.	YES	NO	O
I am smart enough to do this.	YES	NO	P
Stay calm and relaxed.	YES	NO	T
I have a bad memory.	YES	NO	N
I am nervous and worried.	YES	NO	O
I do well in situations like this.	YES	NO	P
The harder it gets, the more I need to try.	YES	NO	T
I'm doing poorly.	YES	NO	N
I wish I were home.	YES	NO	O
I usually do better than other kids.	YES	NO	P
Try something else.	YES	NO	T
I can't do this - I give up.	YES	NO	N
I wish this was over.	YES	NO	O
I am bright enough to do this.	YES	NO	P
Take it one step at a time.	YES	NO	T
Everyone usually does better than me.	YES	NO	N
My mind keeps wandering.	YES	NO	O
This situation is easy for me.	YES	NO	P
I have a plan to use in this situation.	YES	NO	T
I must be making many mistakes.	YES	NO	N
I keep on daydreaming.	YES	NO	O
I am doing the best that I can.	YES	NO	P
Keep looking for a solution.	YES	NO	T
I don't do well in situations like this.	YES	NO	N
I wonder what the other child is thinking about me.	YES	NO	O
I usually catch on quickly to new situations.	YES	NO	P
Pay attention.	YES	NO	T
I am too dumb to do this.	YES	NO	N
I can't seem to sit still.	YES	NO	O
I am doing better than other kids.	YES	NO	P
I've almost figured out what to do - keep trying.	YES	NO	T
I'm doing worse than other kids.	YES	NO	N
Pretty soon I'll get on do something else.	YES	NO	O
I am sure to do fine on this.	YES	NO	P
Don't think about anything else but the situation.	YES	NO	T
I feel really stupid.	YES	NO	N
I am hungry.	YES	NO	O
I am able to do well on different things.	YES	NO	P

APPENDIX C

Table 1

Correlation Matrix
Self-report, significant other report, and behavioral
observation variables

	FSSCR	RCMAS	SCRAT	SCNOM	TEACH	INTVW	PRNT	QUANT
		****	**	*		**		
CDI	.19	.73	-.36	-.26	.14	.39	.22	-.01
		***		**		***		
FSSCR		.46	-.24	-.36	.15	.46	.22	-.05
				**		****		
RCMAS			-.19	-.34	.17	.58	.06	-.06
				****	*			
SOCRAT				.64	-.29	-.10	.04	.17
					-.25	-.13	-.11	.21
SOCNOM						*		*
TEACHER						.31	.13	-.30
INTERVIEW							-.08	.18
PARENT								-.17

**** p<.0001

*** p<.001

** p<.01

* p<.05

Table 2
Analyses of Variance: Self-report measures

Source	df	SS	F	p
Children's Depression Inventory				
Sex	1	38.59	0.69	.41
Status	1	217.91	3.88	.05
<u>Sex*Status</u>	<u>1</u>	<u>.06</u>	<u>0.00</u>	<u>.97</u>
Fear Survey Scale for Children - Revised				
Sex	1	2255.15	5.70	.02
Status	1	2480.47	4.95	.03
<u>Sex*Status</u>	<u>1</u>	<u>178.30</u>	<u>0.36</u>	<u>.55</u>
Revised Children's Manifest Anxiety Scale				
Sex	1	264.39	6.05	.02
Status	1	209.75	4.80	.03
Sex*Status	1	5.63	0.13	.72

Table 3
Self-Report Measures
Cell Means and Standard Deviations

	<u>Sex</u>		<u>Status</u>	
	<u>Males</u>	<u>Females</u>	<u>Withdrawn</u>	<u>Well-Adj</u>
FSSC-R				
total score	127.20 (23.21)	141.63 (23.06)	142.67 (23.23)	128.57 (23.05)
CDI				
total score	6.44 (6.08)	8.20 (8.54)	9.43 (8.96)	5.50 (5.42)
RCMAS total				
anxiety score	7.12 (6.11)	11.51 (7.20)	11.60 (7.70)	7.67 (5.87)

Table 4
Correlation Matrix
FSSCR Factors

	<u>FACTOR 2</u>	<u>FACTOR 3</u>	<u>FACTOR 4</u>	<u>FACTOR 5</u>
FACTOR 1	*** .69	*** .65	*** .66	*** .62
FACTOR 2		*** .78	** .47	*** .69
FACTOR 3			*** .57	*** .70
FACTOR 4				* .39

*** p<.0001

** p<.001

* p<.01

Analyses of Variance:
FSSC-R factors

Source	df	SS	F	p
Factor 1: Fear of failure and criticism				
Sex	1	98.71	1.86	.18
Status	1	130.27	2.45	.12
Sex*Status	1	4.18	0.08	.78
Factor 2: Fear of the unknown				
Sex	1	118.47	1.95	.17
Status	1	161.26	2.66	.11
Sex*Status	1	16.51	0.27	.60
Factor 3: Fear of injury and small animals				
Sex	1	1020.98	17.39	.00
Status	1	334.96	6.97	.01
Sex*Status	1	13.44	0.23	.63
Factor 4: Fear of danger and death				
Sex	1	124.75	2.55	.17
Status	1	340.96	6.97	.01
Sex*Status	1	9.69	0.20	.66
Factor 5: Medical fears				
Sex	1	33.09	3.34	.07
Status	1	50.40	5.08	.03
Sex*Status	1	.06	0.01	.94

Table 6

**FSSC-R Factor Scores
Cell Means and Standard Deviations**

	<u>Sex</u>		<u>Status</u>	
	<u>Males</u>	<u>Females</u>	<u>Withdrawn</u>	<u>Well-Adj</u>
Factor 1	28.6 (8.8)	31.3 (6.1)	31.8 (6.2)	28.6 (8.2)
Factor 2	27.2 (8.9)	30.2 (7.0)	30.8 (7.1)	27.1 (8.4)
Factor 3	31.8 (9.3)	40.4 (6.8)	39.4 (7.5)	34.2 (9.6)
Factor 4	26.6 (7.8)	29.7 (6.9)	30.8 (5.9)	25.9 (8.0)
Factor 5	10.0 (3.6)	11.6 (3.0)	11.9 (3.0)	9.9 (3.3)

119
Table 7

Correlation Matrix
RCMAS Anxiety Factors

	<u>FACTOR 2</u>	<u>FACTOR 3</u>
FACTOR 1	.78*	.68*
FACTOR 2		.73*

* $p < .0001$

Table 8
Analyses of Variance:
RCMAS Factor Scores

Source	df	SS	F	p
Factor 1: Physiological Anxiety				
Sex	1	11.51	2.11	.15
Status	1	26.73	4.89	.03
<u>Sex*Status</u>	<u>1</u>	<u>1.36</u>	<u>0.25</u>	<u>.62</u>
Factor 2: Worry and Oversensitivity				
Sex	1	71.82	9.27	.004
Status	1	16.94	2.19	.15
<u>Sex*Status</u>	<u>1</u>	<u>.10</u>	<u>0.01</u>	<u>.91</u>
Factor 3: Concentration Anxiety				
Sex	1	14.64	3.46	.07
Status	1	25.80	6.09	.02
<u>Sex*Status</u>	<u>1</u>	<u>5.00</u>	<u>1.18</u>	<u>.28</u>

Table 9
RCMAS Factor Scores
Cell Means and Standard Deviations

	<u>Sex</u>		<u>Status</u>	
	<u>Males</u>	<u>Females</u>	<u>Withdrawn</u>	<u>Well-Adj</u>
Factor 1	2.70 (2.25)	3.70 (2.50)	3.93 (2.55)	2.60 (2.13)
Factor 2	2.40 (2.40)	4.70 (3.04)	4.30 (3.27)	3.10 (2.59)
Factor 3	1.90 (2.25)	2.97 (2.05)	3.20 (2.39)	1.90 (1.77)

Table 10

Analyses of Variance: Significant Other-Report Measures

Source	df	SS	F	p
Teacher Rating: AML Moodiness scale				
sex	1	27.35	2.02	.16
status	1	357.08	26.42	.0001
<u>sex*status</u>	<u>1</u>	<u>.00</u>	<u>0.00</u>	<u>.99</u>
Parent Rating: RBPC Anxiety-Withdrawal factor				
sex	1	53.22	0.46	.51
status	1	149.40	1.28	.27
<u>sex*status</u>	<u>1</u>	<u>1.15</u>	<u>0.01</u>	<u>.92</u>
Peer Rating: Postive Nominations				
sex	1	.08	2.52	.12
status	1	.67	22.48	.0001
<u>sex*status</u>	<u>1</u>	<u>.01</u>	<u>0.25</u>	<u>.62</u>
Peer Rating: Sociometric Rating				
sex	1	.26	0.70	.41
status	1	14.25	38.06	.0001
<u>sex*status</u>	<u>1</u>	<u>1.01</u>	<u>2.69</u>	<u>.11</u>

Table 11

Significant Other Report Measures:
Cell Means and Standard Deviations

	Sex		Status	
	Male	Female	Withdrawn	Well-Adj
PEER				
Rating	3.58 (.66)	3.41 (.90)	2.96 (.71)	4.00 (.52)
Nomination	.27 (.23)	.19 (.18)	.12 (.13)	.34 (.21)
TEACHER				
AML Moodiness	10.44 (4.38)	9.58 (4.54)	12.48 (4.59)	7.41 (2.45)
PARENT				
*RBPC Anx-With	3.17 (5.32)	6.33 (16.04)	7.56 (14.70)	2.94 (3.60)

*Note: For RBPC, cell means are different (withdrawn n=17, well-adjusted n=16, male n=12, female n=21).

Table 12

Analyses of Variance: Behavioral Observations

Source	df	SS	F	p
Quantity				
sex	1	3.44	0.02	.88
status	1	1246.72	8.24	.006
sex*status	1	165.39	1.09	.30
Quality				
sex	1	5.98	0.04	.84
status	1	1091.42	7.20	.01
sex*status	1	196.49	1.30	.26
Initiations				
sex	1	.53	0.13	.72
status	1	.04	0.01	.92
sex*status	1	1.70	0.41	.53

Table 13

Behavioral Observations
Cell Means and Standard Deviations

	<u>Sex</u>		<u>Status</u>	
	<u>Males</u>	<u>Females</u>	<u>Withdrawn</u>	<u>Well-Adj</u>
Quantity	40.12 (12.36)	40.09 (13.80)	35.28 (13.50)	45.11 (10.69)
Quality	39.60 (12.30)	39.70 (13.70)	35.10 (13.52)	44.40 (10.75)
Initiations	2.04 (1.97)	1.84 (2.05)	1.93 (1.73)	1.93 (2.28)

QUANTITY = POSITIVE + NEGATIVE PEER INTERACTION
 QUALITY = POSITIVE PEER INTERACTION
 INITIATION = POSITIVE + NEGATIVE INITIATIONS

Table 14

Analysis of Variance: Structured Interview

Source	df	SS	F	p
Total Pathology Score: Shortened CAS				
Sex	1	2.38	0.15	.70
Status	1	0.00	0.00	.99
Sex*Status	1	1.25	0.08	.78

**Structured Interview:
Cell Means and Standard Deviations**

	Withdrawn	Well-Adjusted
Males	10.58 (5.18)	6.85 (3.89)
Females	8.39 (3.48)	8.24 (3.96)

Table 15
 Analyses of Variance: Cognitive Measure

Source	df	SS	F	p
ON TASK THOUGHTS				
Sex	1	6.85	0.12	.73
Status	1	4.32	0.08	.78
<u>Sex*Status</u>	<u>1</u>	<u>1.05</u>	<u>0.02</u>	<u>.89</u>
OFF TASK THOUGHTS				
Sex	1	89.73	1.45	.23
Status	1	64.60	1.05	.31
<u>Sex*Status</u>	<u>1</u>	<u>327.32</u>	<u>5.30</u>	<u>.03</u>
POSTIVE EVALUATION				
Sex	1	0.08	0.00	.97
Status	1	54.31	0.78	.38
<u>Sex*Status</u>	<u>1</u>	<u>308.32</u>	<u>4.41</u>	<u>.04</u>
NEGATIVE EVALUATION				
Sex	1	115.60	2.82	.10
Status	1	122.36	2.99	.09
<u>Sex*Status</u>	<u>1</u>	<u>100.53</u>	<u>2.46</u>	<u>.12</u>

Table 16

Cognitive Measure
Cell Means and Standard Deviations

	Withdrawn		Well-Adjusted	
	Males	Females	Males	Females
On Task Thoughts	25.40 (6.73)	25.80 (8.44)	25.70 (6.55)	26.65 (7.31)
Off Task Thoughts	24.00 (7.35)	16.78 (9.38)	17.15 (7.41)	19.41 (6.64)
Positive Evaluation	24.10 (9.89)	28.60 (7.94)	30.60 (8.14)	25.90 (7.81)
Negative Evaluation	12.80 (9.00)	7.40 (6.71)	7.30 (5.23)	7.10 (4.37)

Table 17

Discriminant function analysis:
Self-report measures

<u>From Status</u>	<u>Into Status</u>		<u>Total</u>
	<u>Well-Adjusted</u>	<u>Withdrawn</u>	
Well-Adjusted	23 77%	7 23%	25 100%
Withdrawn	15 50%	15 50%	30 100%
<hr/>			
Total	38	22	60
Percent	63%	37%	100%
Priors	.5	.5	

Table 18

**Discriminant Function Analysis
Peer, Teacher, and Behavioral Observation Measures**

<u>From Status</u>	<u>Into Status</u>		<u>Total</u>
	<u>Well-Adjusted</u>	<u>Withdrawn</u>	
Well-Adjusted	24 96%	1 4%	25 100%
Withdrawn	2 8%	24 92%	26 100%
<hr/>			
Total	26	25	51
Percent	51%	49%	100%
Priors	.5	.5	

**The 6 page vita has been
removed from the scanned
document**

**The vita has been removed from
the scanned document**

**The vita has been removed from
the scanned document**

**The vita has been removed from
the scanned document**

**The vita has been removed from
the scanned document**

**The vita has been removed from
the scanned document**